Pantheon Report

Generated at 2019-07-12 18:45:30 (UTC).

Data path: India on **em1** (*remote*) →AWS India 1 on **ens5** (*local*).

Repeated the test of 24 congestion control schemes 5 times.

Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

NTP offsets were measured against **nets.org.sg** and have been applied to correct the timestamps in logs.

```
System info:
Linux 4.15.0-1041-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ 2076e1149a241f3edb4365d686df32342bf9561f
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 8bb93ffff2b107204a92d8b72449fc0c55e15f00
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
```

```
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from India to AWS India 1, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from India to AWS India 1, 5 runs of 30s each per scheme
3 flows with 10s interval between flows

Legend:
- FillP-Sheep
- Indigo
- Sprout
- Indigo-MusesD
- Indigo-MusesT
- Muses_DecisionTree
- Verus
- PCC-Allegro
- WebRTC media
- LEDBAT
- PCC-Expr
- Copa
- QUIC Cubic
- TCP Cubic
- PCC-Vivace
- TCP Vegas
- TaoVA-100x
- Muses_DecisionTreeR0
- FillP
- TCP BBR
- Indigo-MusesC5
- Muses_DecisionTreeH0
- SCReAM
- Indigo-MusesC3

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scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	58.43	42.19	30.59	51.67	109.57	127.96	1.39	1.49	1.81
Copa	5	51.68	36.15	28.10	28.12	26.38	27.99	0.07	0.11	0.25
TCP Cubic	5	57.29	41.72	30.25	28.57	28.89	29.54	0.07	0.13	0.35
FillP	5	56.74	45.27	25.49	59.35	82.34	76.82	0.29	2.57	3.37
FillP-Sheep	5	55.67	40.37	35.67	55.06	61.57	71.21	0.11	0.25	0.35
Indigo	5	58.40	41.15	33.59	28.74	28.61	28.56	0.09	0.25	0.32
Indigo-MusesC3	5	53.06	35.73	19.34	27.00	26.38	26.79	0.04	0.09	0.51
Indigo-MusesC5	5	57.01	37.24	40.27	62.42	75.30	58.88	0.80	1.62	1.87
Indigo-MusesD	5	54.37	39.67	26.10	47.98	48.44	36.90	0.28	0.35	0.54
Indigo-MusesT	5	61.87	40.15	24.94	62.75	86.51	84.43	0.42	1.06	2.58
LEDBAT	5	53.16	37.27	31.20	31.21	32.93	33.70	0.08	0.14	0.38
Muses_DecisionTree	5	40.83	39.46	54.73	869.16	1046.61	1259.02	0.84	1.82	2.98
Muses_DecisionTreeH0	5	47.16	40.31	51.17	781.81	1194.45	1526.87	1.60	1.93	5.18
Muses_DecisionTreeR0	5	43.22	39.63	44.97	873.71	1087.57	1138.62	0.63	2.10	3.97
PCC-Allegro	5	61.77	38.16	20.73	1857.75	1498.07	104.58	10.08	9.65	1.44
PCC-Expr	5	59.91	32.26	31.15	961.05	789.39	167.41	26.81	5.77	2.37
QUIC Cubic	5	57.61	39.03	29.31	32.49	31.53	42.94	0.10	0.20	0.50
SCReAM	5	0.21	0.21	0.21	20.58	20.57	20.61	0.10	0.19	0.35
Sprout	5	24.23	24.16	23.68	28.76	29.41	29.89	0.09	0.18	0.33
TaoVA-100x	5	59.71	37.51	27.66	87.54	175.08	177.52	0.35	0.87	2.20
TCP Vegas	5	52.73	37.65	41.90	22.97	22.92	23.01	0.06	0.16	0.27
Verus	5	55.03	41.31	32.70	75.38	77.37	161.95	0.19	0.35	0.73
PCC-Vivace	5	53.87	31.47	20.90	328.22	32.17	27.37	0.53	0.15	0.36
WebRTC media	5	1.61	0.88	0.40	22.04	22.00	21.98	0.02	0.00	0.28

```
Run 1: Statistics of TCP BBR

Start at: 2019-07-12 16:06:32
End at: 2019-07-12 16:07:02
Local clock offset: 2.442 ms
Remote clock offset: -3.218 ms


# Below is generated by plot.py at 2019-07-12 18:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.88 Mbit/s
95th percentile per-packet one-way delay: 76.308 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 58.91 Mbit/s
95th percentile per-packet one-way delay: 46.615 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 40.51 Mbit/s
95th percentile per-packet one-way delay: 109.115 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 33.14 Mbit/s
95th percentile per-packet one-way delay: 112.053 ms
Loss rate: 1.62%
```

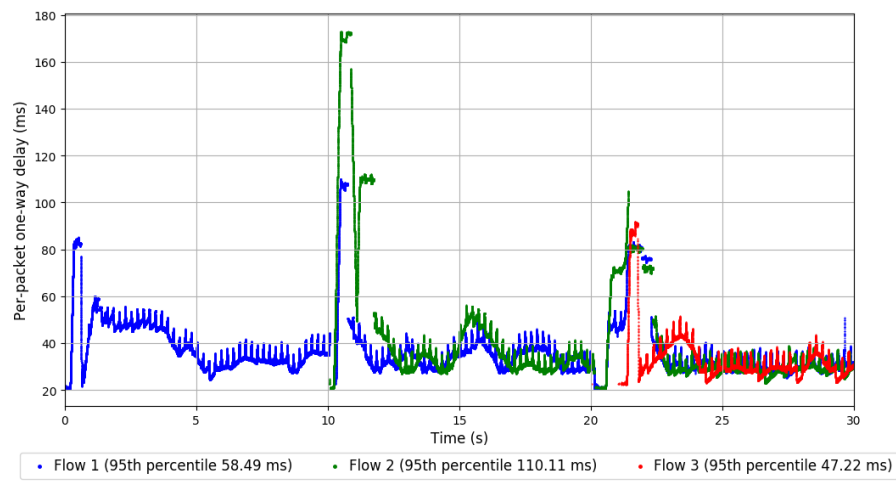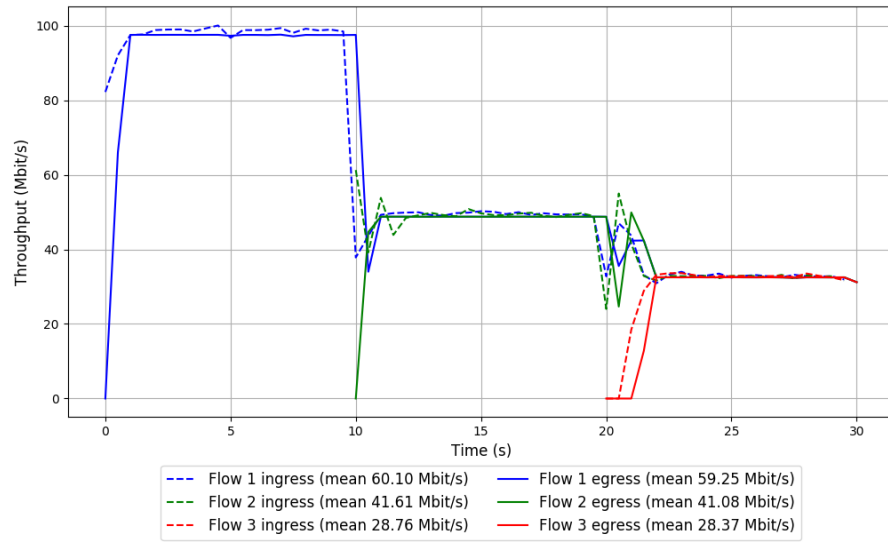Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-07-12 16:36:06
End at: 2019-07-12 16:36:36
Local clock offset: 3.804 ms
Remote clock offset: -1.304 ms


# Below is generated by plot.py at 2019-07-12 18:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.02 Mbit/s
95th percentile per-packet one-way delay: 80.607 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 59.25 Mbit/s
95th percentile per-packet one-way delay: 58.490 ms
Loss rate: 1.51%
-- Flow 2:
Average throughput: 41.08 Mbit/s
95th percentile per-packet one-way delay: 110.108 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 28.37 Mbit/s
95th percentile per-packet one-way delay: 47.222 ms
Loss rate: 1.64%
```

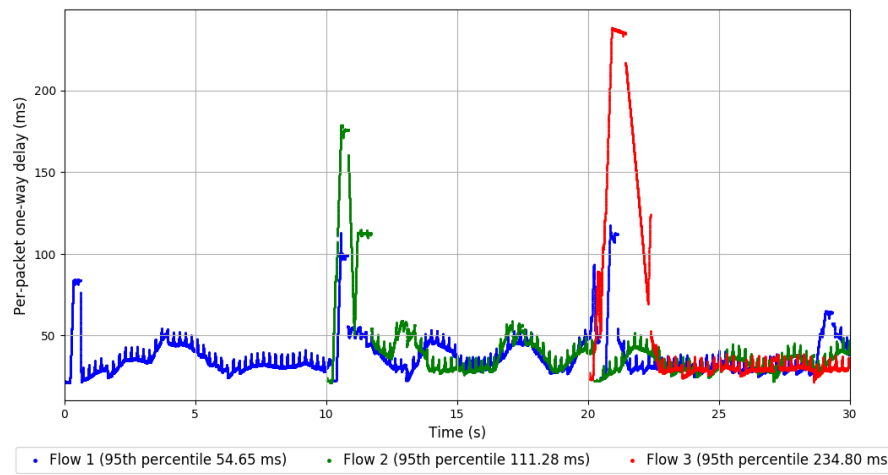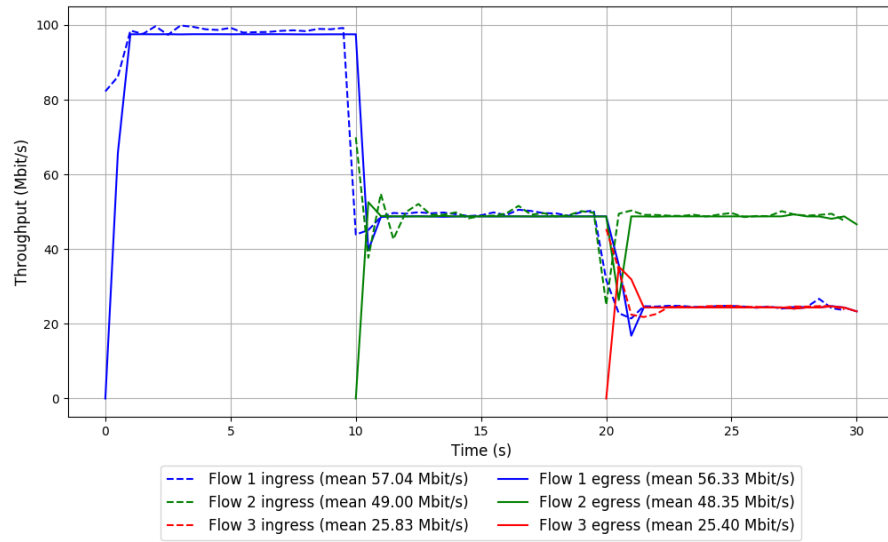Run 2: Report of TCP BBR — Data Link

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```
Run 3: Statistics of TCP BBR

Start at: 2019-07-12 17:05:54
End at: 2019-07-12 17:06:24
Local clock offset: 3.129 ms
Remote clock offset: -2.504 ms


# Below is generated by plot.py at 2019-07-12 18:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.97 Mbit/s
95th percentile per-packet one-way delay: 83.680 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 56.33 Mbit/s
95th percentile per-packet one-way delay: 54.651 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 48.35 Mbit/s
95th percentile per-packet one-way delay: 111.277 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 25.40 Mbit/s
95th percentile per-packet one-way delay: 234.803 ms
Loss rate: 1.96%
```
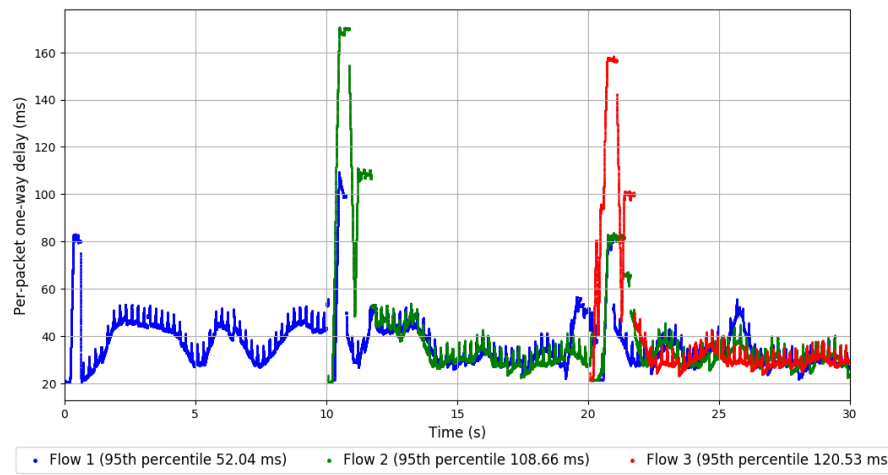
Run 3: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 57.04 Mbit/s)   —— Flow 1 egress (mean 56.33 Mbit/s)
- - - Flow 2 ingress (mean 49.00 Mbit/s)   —— Flow 2 egress (mean 48.35 Mbit/s)
- - - Flow 3 ingress (mean 25.83 Mbit/s)   —— Flow 3 egress (mean 25.40 Mbit/s)

- Flow 1 (95th percentile 54.65 ms)   • Flow 2 (95th percentile 111.28 ms)   • Flow 3 (95th percentile 234.80 ms)
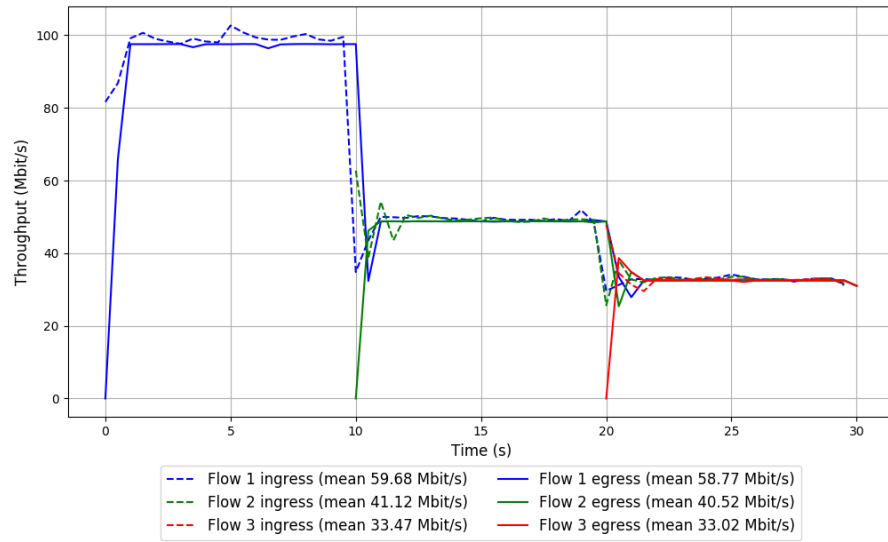
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```
Run 4: Statistics of TCP BBR

Start at: 2019-07-12 17:35:18
End at: 2019-07-12 17:35:48
Local clock offset: 2.447 ms
Remote clock offset: -3.062 ms


# Below is generated by plot.py at 2019-07-12 18:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.71 Mbit/s
95th percentile per-packet one-way delay: 81.303 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 58.77 Mbit/s
95th percentile per-packet one-way delay: 52.043 ms
Loss rate: 1.62%
-- Flow 2:
Average throughput: 40.52 Mbit/s
95th percentile per-packet one-way delay: 108.658 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 33.02 Mbit/s
95th percentile per-packet one-way delay: 120.530 ms
Loss rate: 1.62%
```
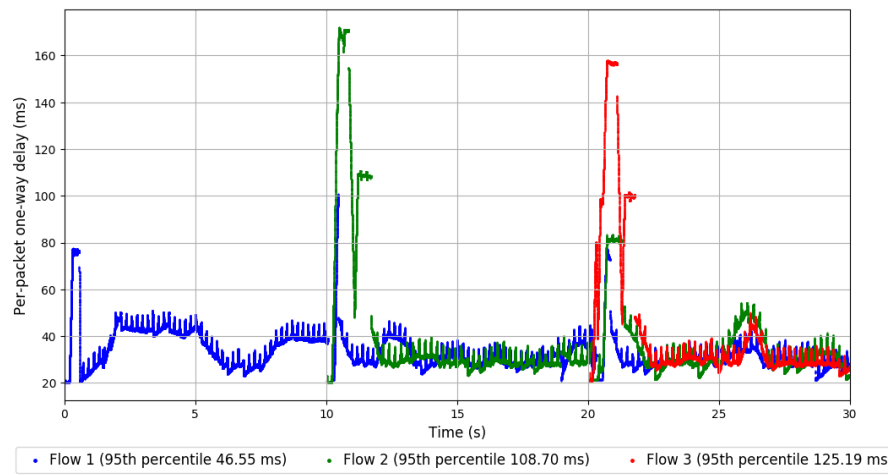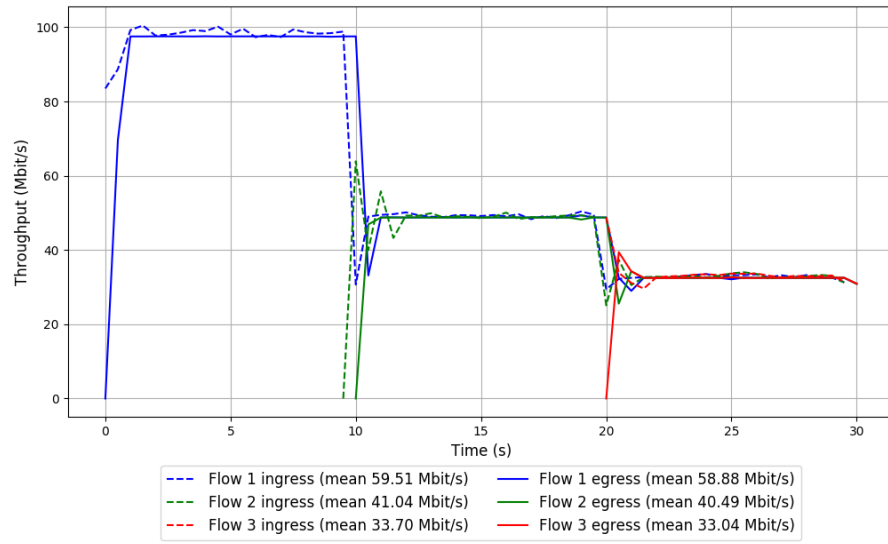
Run 4: Report of TCP BBR — Data Link

Legend:
- Flow 1 ingress (mean 59.68 Mbit/s)
- Flow 1 egress (mean 58.77 Mbit/s)
- Flow 2 ingress (mean 41.12 Mbit/s)
- Flow 2 egress (mean 40.52 Mbit/s)
- Flow 3 ingress (mean 33.47 Mbit/s)
- Flow 3 egress (mean 33.02 Mbit/s)

Legend:
- Flow 1 (95th percentile 52.04 ms)
- Flow 2 (95th percentile 108.66 ms)
- Flow 3 (95th percentile 120.53 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-07-12 18:04:38
End at: 2019-07-12 18:05:08
Local clock offset: 4.864 ms
Remote clock offset: -4.393 ms


# Below is generated by plot.py at 2019-07-12 18:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.83 Mbit/s
95th percentile per-packet one-way delay: 75.897 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 58.88 Mbit/s
95th percentile per-packet one-way delay: 46.546 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 40.49 Mbit/s
95th percentile per-packet one-way delay: 108.703 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 33.04 Mbit/s
95th percentile per-packet one-way delay: 125.193 ms
Loss rate: 2.23%
```
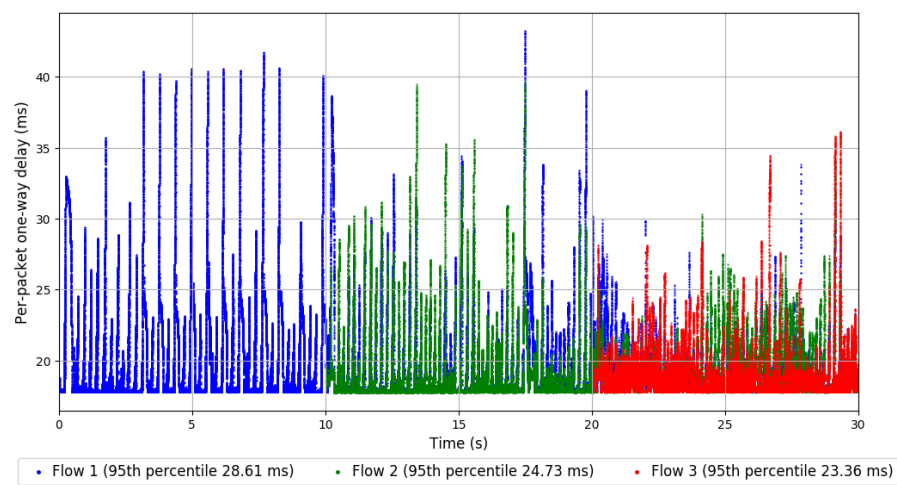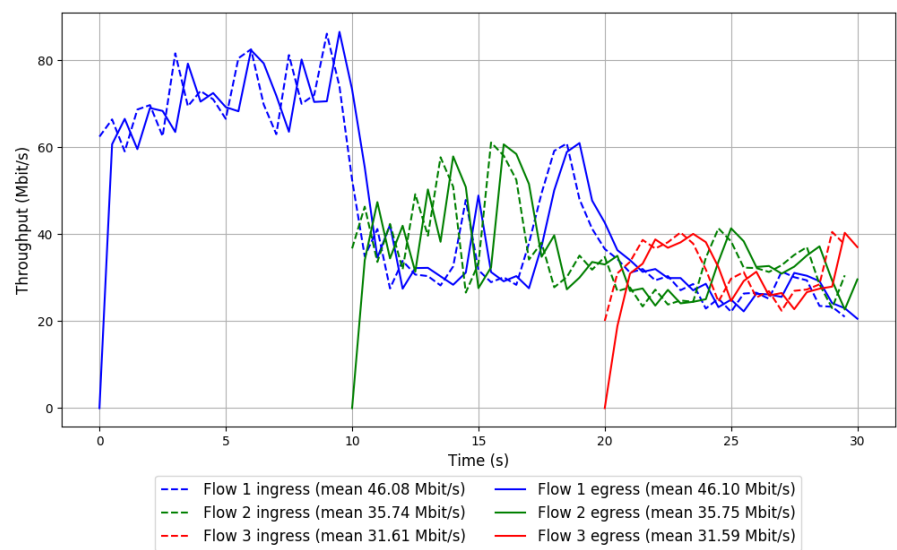
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 59.51 Mbit/s) --- Flow 1 egress (mean 58.88 Mbit/s)
Flow 2 ingress (mean 41.04 Mbit/s) --- Flow 2 egress (mean 40.49 Mbit/s)
Flow 3 ingress (mean 33.70 Mbit/s) --- Flow 3 egress (mean 33.04 Mbit/s)

Flow 1 (95th percentile 46.55 ms) Flow 2 (95th percentile 108.70 ms) Flow 3 (95th percentile 125.19 ms)

```
Run 1: Statistics of Copa

Start at: 2019-07-12 16:26:14
End at: 2019-07-12 16:26:44
Local clock offset: 1.209 ms
Remote clock offset: -0.667 ms


# Below is generated by plot.py at 2019-07-12 18:29:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.38 Mbit/s
95th percentile per-packet one-way delay: 26.624 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 46.10 Mbit/s
95th percentile per-packet one-way delay: 28.610 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 35.75 Mbit/s
95th percentile per-packet one-way delay: 24.731 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 23.364 ms
Loss rate: 0.35%
```
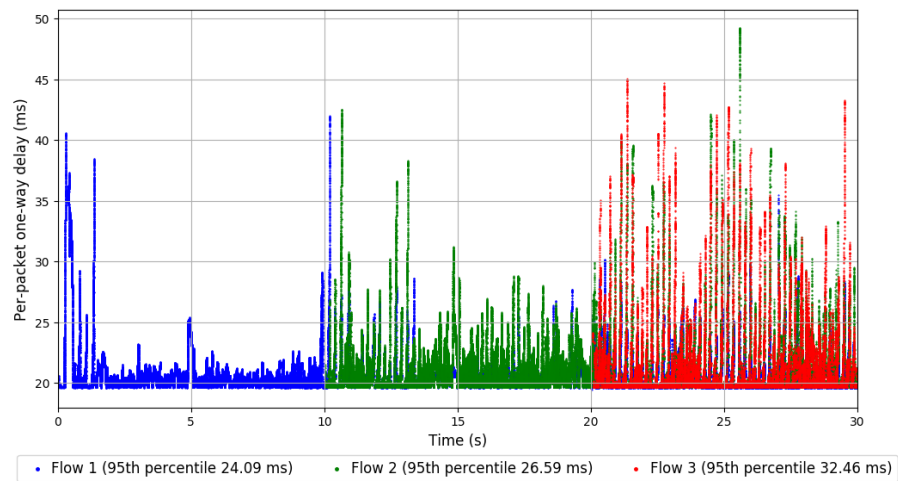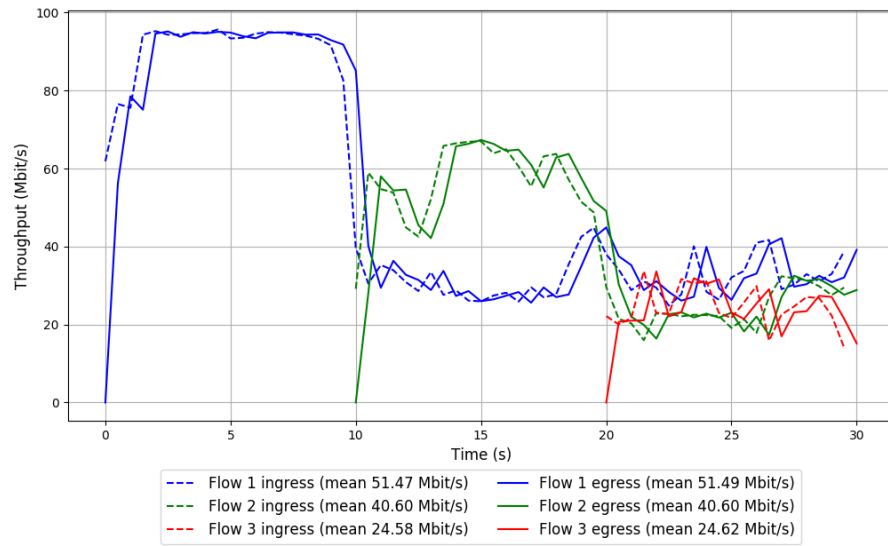
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-07-12 16:55:52
End at: 2019-07-12 16:56:22
Local clock offset: 3.684 ms
Remote clock offset: -0.592 ms


# Below is generated by plot.py at 2019-07-12 18:29:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.69 Mbit/s
95th percentile per-packet one-way delay: 25.869 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 51.49 Mbit/s
95th percentile per-packet one-way delay: 24.085 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.60 Mbit/s
95th percentile per-packet one-way delay: 26.592 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 24.62 Mbit/s
95th percentile per-packet one-way delay: 32.460 ms
Loss rate: 0.16%
```
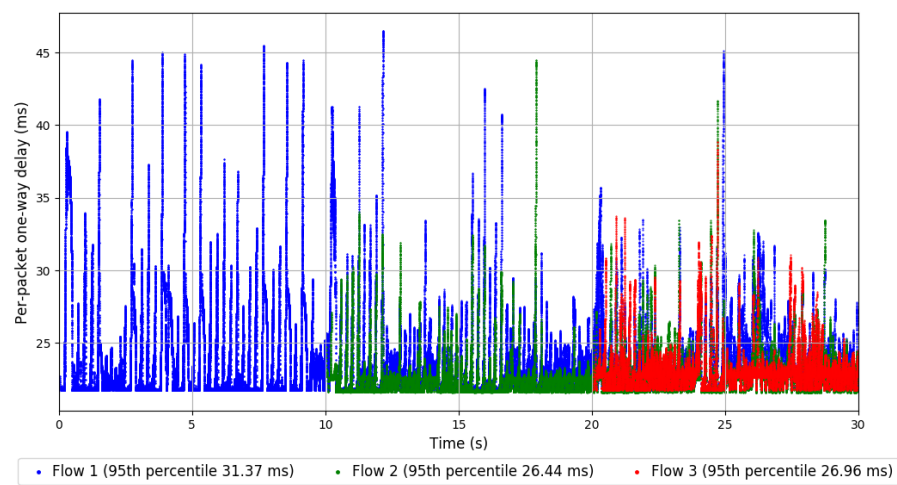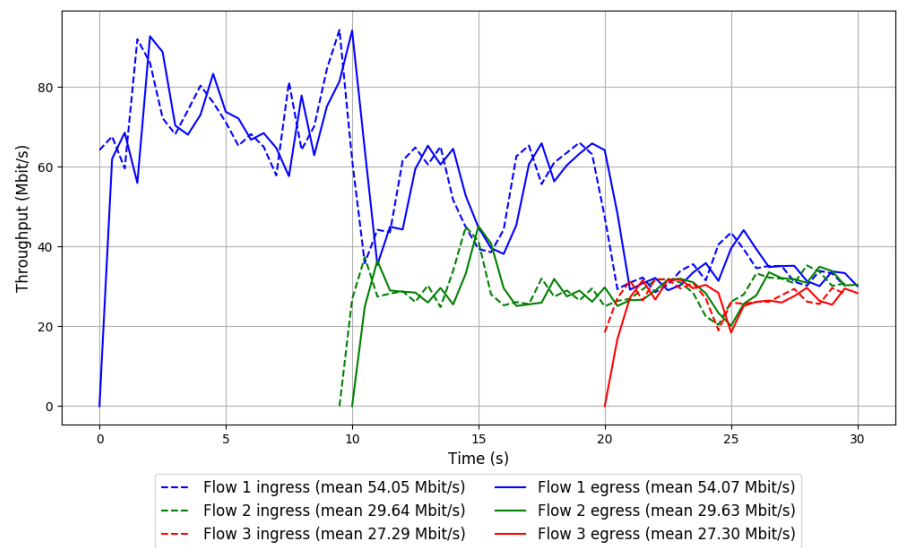
Run 2: Report of Copa — Data Link

Legend:
- - - - Flow 1 ingress (mean 51.47 Mbit/s) ——— Flow 1 egress (mean 51.49 Mbit/s)
- - - - Flow 2 ingress (mean 40.60 Mbit/s) ——— Flow 2 egress (mean 40.60 Mbit/s)
- - - - Flow 3 ingress (mean 24.58 Mbit/s) ——— Flow 3 egress (mean 24.62 Mbit/s)

Legend:
• Flow 1 (95th percentile 24.09 ms)   • Flow 2 (95th percentile 26.59 ms)   • Flow 3 (95th percentile 32.46 ms)

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```
Run 3: Statistics of Copa

Start at: 2019-07-12 17:25:31
End at: 2019-07-12 17:26:01
Local clock offset: 2.314 ms
Remote clock offset: -3.994 ms


# Below is generated by plot.py at 2019-07-12 18:29:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.87 Mbit/s
95th percentile per-packet one-way delay: 29.688 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 54.07 Mbit/s
95th percentile per-packet one-way delay: 31.370 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 29.63 Mbit/s
95th percentile per-packet one-way delay: 26.439 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 27.30 Mbit/s
95th percentile per-packet one-way delay: 26.956 ms
Loss rate: 0.23%
```
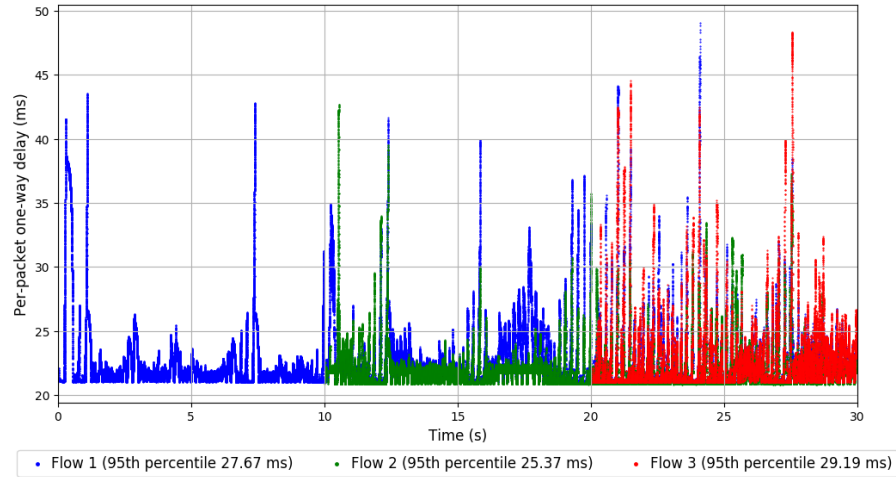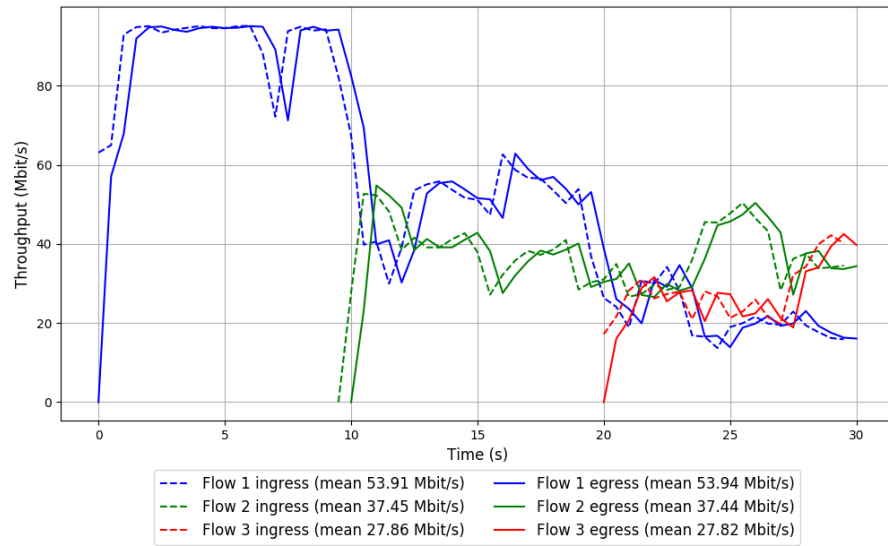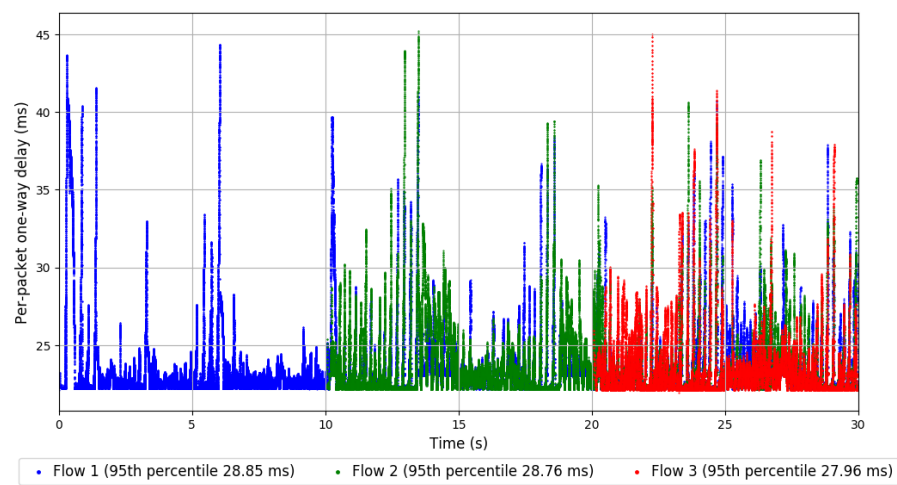
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 54.05 Mbit/s) ——— Flow 1 egress (mean 54.07 Mbit/s)
Flow 2 ingress (mean 29.64 Mbit/s) ——— Flow 2 egress (mean 29.63 Mbit/s)
Flow 3 ingress (mean 27.29 Mbit/s) ——— Flow 3 egress (mean 27.30 Mbit/s)

• Flow 1 (95th percentile 31.37 ms)   • Flow 2 (95th percentile 26.44 ms)   • Flow 3 (95th percentile 26.96 ms)

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```
Run 4: Statistics of Copa

Start at: 2019-07-12 17:54:50
End at: 2019-07-12 17:55:20
Local clock offset: 2.519 ms
Remote clock offset: -4.595 ms


# Below is generated by plot.py at 2019-07-12 18:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.12 Mbit/s
95th percentile per-packet one-way delay: 27.041 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 53.94 Mbit/s
95th percentile per-packet one-way delay: 27.673 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 37.44 Mbit/s
95th percentile per-packet one-way delay: 25.367 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 27.82 Mbit/s
95th percentile per-packet one-way delay: 29.194 ms
Loss rate: 0.39%
```
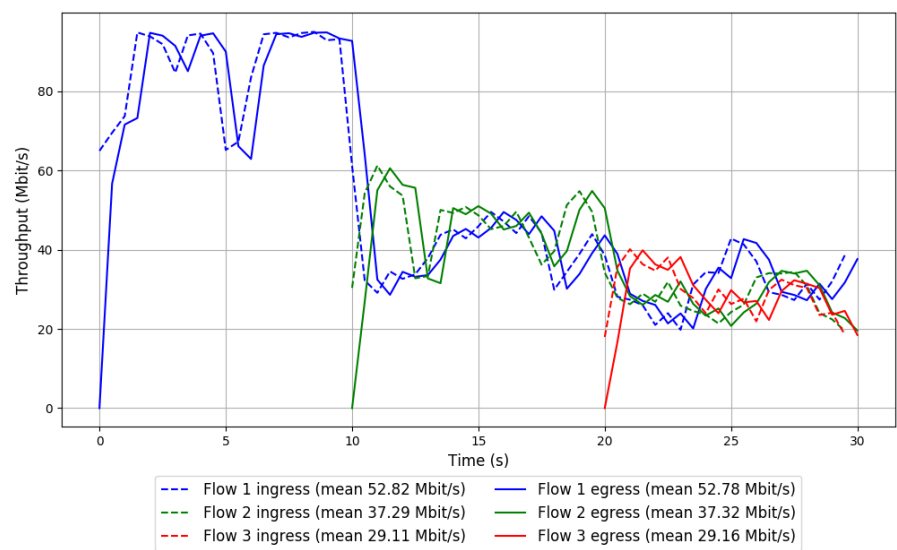
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-07-12 18:24:22
End at: 2019-07-12 18:24:52
Local clock offset: 9.112 ms
Remote clock offset: -5.248 ms


# Below is generated by plot.py at 2019-07-12 18:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.31 Mbit/s
95th percentile per-packet one-way delay: 28.692 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 52.78 Mbit/s
95th percentile per-packet one-way delay: 28.852 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 37.32 Mbit/s
95th percentile per-packet one-way delay: 28.757 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 29.16 Mbit/s
95th percentile per-packet one-way delay: 27.963 ms
Loss rate: 0.14%
```
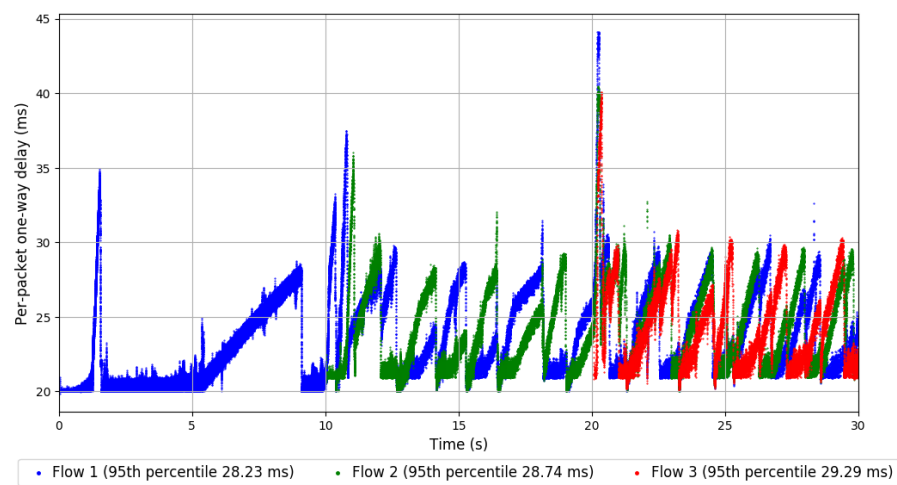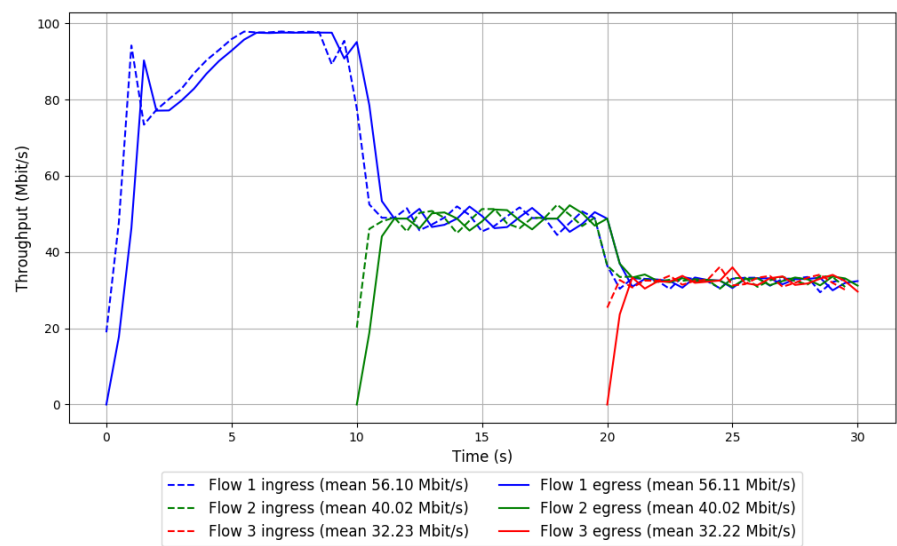
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 52.82 Mbit/s)   Flow 1 egress (mean 52.78 Mbit/s)
Flow 2 ingress (mean 37.29 Mbit/s)   Flow 2 egress (mean 37.32 Mbit/s)
Flow 3 ingress (mean 29.11 Mbit/s)   Flow 3 egress (mean 29.16 Mbit/s)

Flow 1 (95th percentile 28.85 ms)   Flow 2 (95th percentile 28.76 ms)   Flow 3 (95th percentile 27.96 ms)
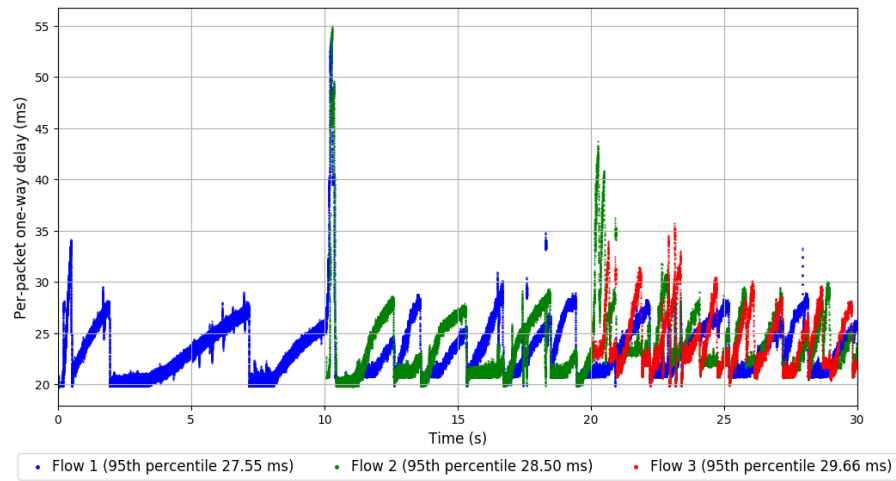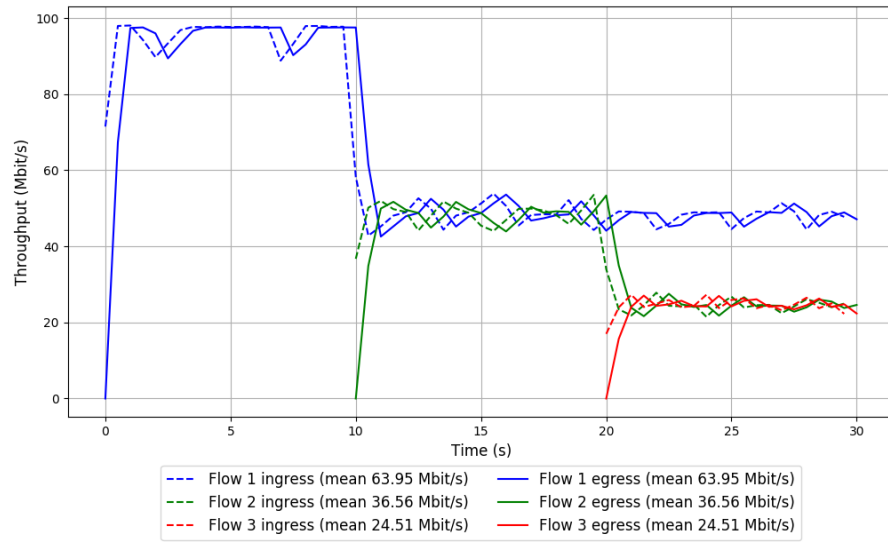
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```
Run 1: Statistics of TCP Cubic

Start at: 2019-07-12 16:17:57
End at: 2019-07-12 16:18:27
Local clock offset: 3.087 ms
Remote clock offset: -1.359 ms


# Below is generated by plot.py at 2019-07-12 18:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.44 Mbit/s
95th percentile per-packet one-way delay: 28.627 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 56.11 Mbit/s
95th percentile per-packet one-way delay: 28.233 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.02 Mbit/s
95th percentile per-packet one-way delay: 28.743 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 32.22 Mbit/s
95th percentile per-packet one-way delay: 29.289 ms
Loss rate: 0.30%
```
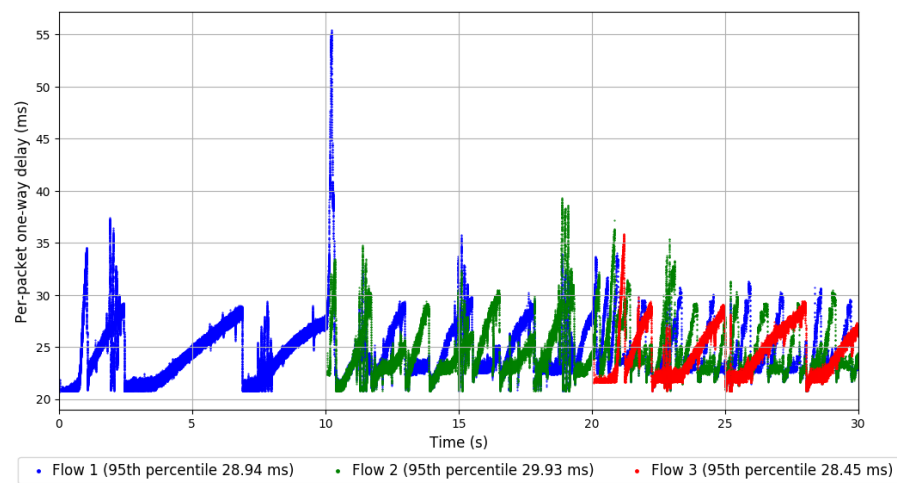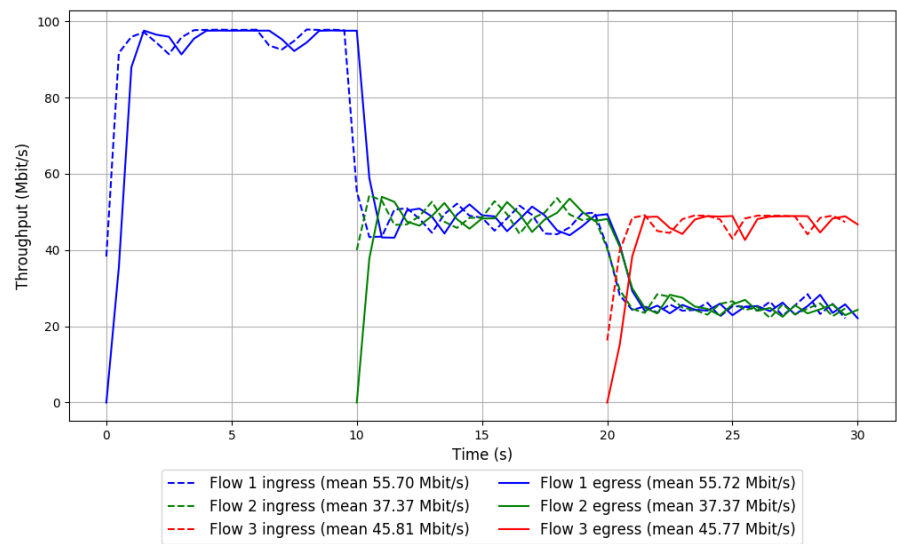
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 56.10 Mbit/s) ----   Flow 1 egress (mean 56.11 Mbit/s)
Flow 2 ingress (mean 40.02 Mbit/s) ----   Flow 2 egress (mean 40.02 Mbit/s)
Flow 3 ingress (mean 32.23 Mbit/s) ----   Flow 3 egress (mean 32.22 Mbit/s)

Flow 1 (95th percentile 28.23 ms)   Flow 2 (95th percentile 28.74 ms)   Flow 3 (95th percentile 29.29 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2019-07-12 16:47:29
End at: 2019-07-12 16:47:59
Local clock offset: 3.24 ms
Remote clock offset: -1.042 ms


# Below is generated by plot.py at 2019-07-12 18:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.42 Mbit/s
95th percentile per-packet one-way delay: 27.934 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 63.95 Mbit/s
95th percentile per-packet one-way delay: 27.550 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 36.56 Mbit/s
95th percentile per-packet one-way delay: 28.498 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 29.665 ms
Loss rate: 0.28%
```
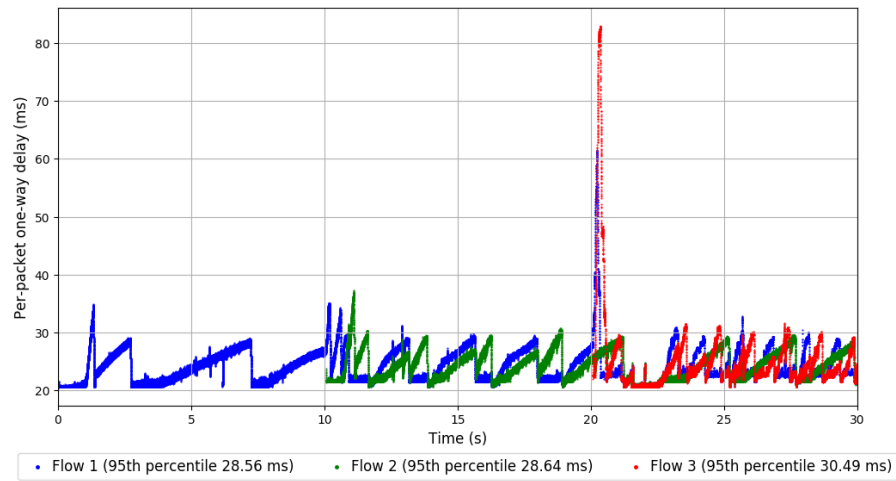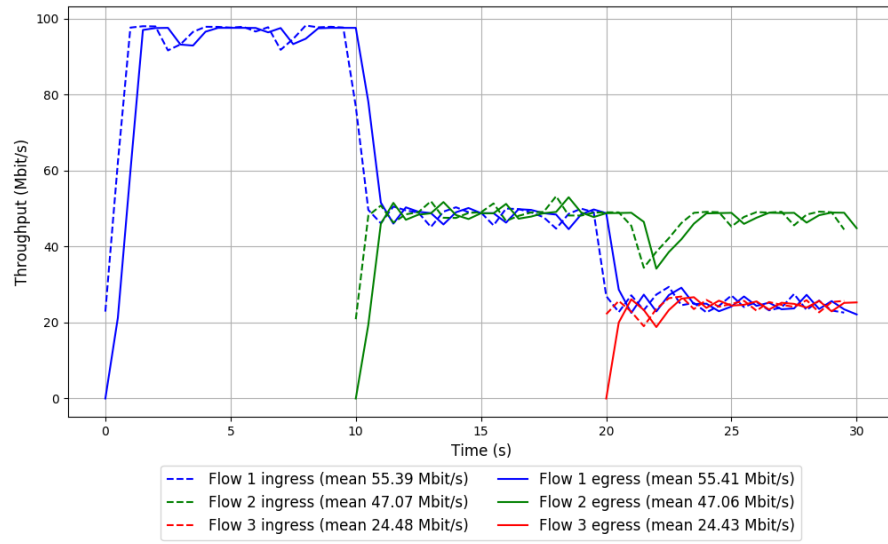
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 63.95 Mbit/s) — Flow 1 egress (mean 63.95 Mbit/s)
Flow 2 ingress (mean 36.56 Mbit/s) — Flow 2 egress (mean 36.56 Mbit/s)
Flow 3 ingress (mean 24.51 Mbit/s) — Flow 3 egress (mean 24.51 Mbit/s)

Flow 1 (95th percentile 27.55 ms)   Flow 2 (95th percentile 28.50 ms)   Flow 3 (95th percentile 29.66 ms)

28

```
Run 3: Statistics of TCP Cubic

Start at: 2019-07-12 17:17:16
End at: 2019-07-12 17:17:46
Local clock offset: 2.685 ms
Remote clock offset: -2.448 ms


# Below is generated by plot.py at 2019-07-12 18:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 29.116 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 55.72 Mbit/s
95th percentile per-packet one-way delay: 28.943 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 37.37 Mbit/s
95th percentile per-packet one-way delay: 29.928 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 45.77 Mbit/s
95th percentile per-packet one-way delay: 28.451 ms
Loss rate: 0.34%
```
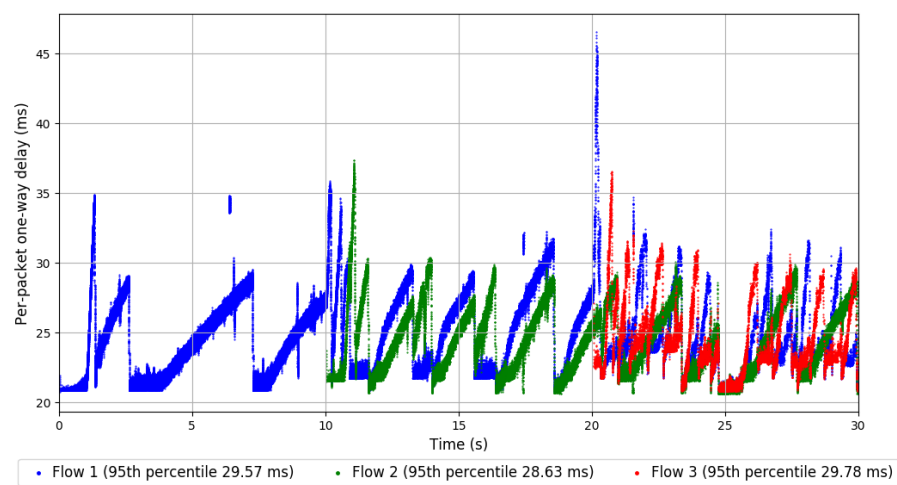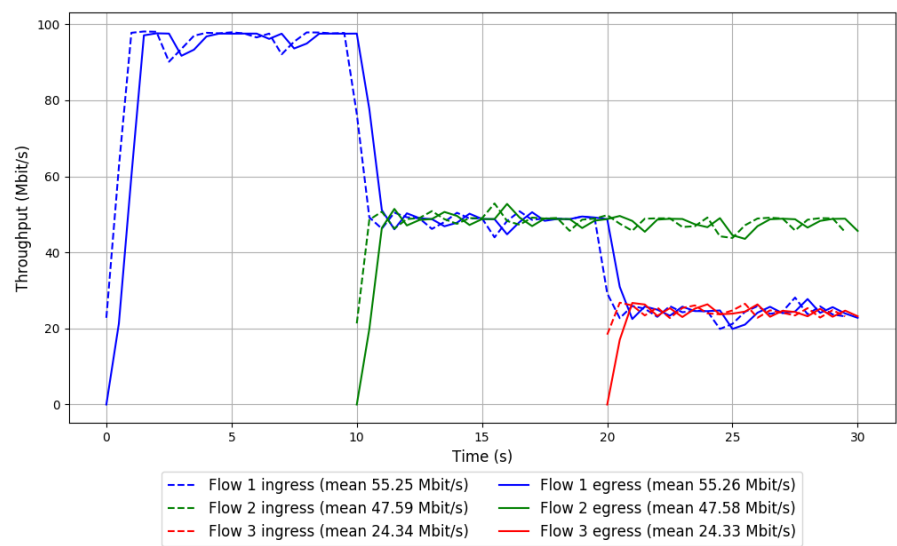
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 55.70 Mbit/s) — Flow 1 egress (mean 55.72 Mbit/s)
Flow 2 ingress (mean 37.37 Mbit/s) — Flow 2 egress (mean 37.37 Mbit/s)
Flow 3 ingress (mean 45.81 Mbit/s) — Flow 3 egress (mean 45.77 Mbit/s)

Flow 1 (95th percentile 28.94 ms)   Flow 2 (95th percentile 29.93 ms)   Flow 3 (95th percentile 28.45 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-07-12 17:46:33
End at: 2019-07-12 17:47:03
Local clock offset: 3.013 ms
Remote clock offset: -3.291 ms


# Below is generated by plot.py at 2019-07-12 18:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.84 Mbit/s
95th percentile per-packet one-way delay: 28.727 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 55.41 Mbit/s
95th percentile per-packet one-way delay: 28.557 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 47.06 Mbit/s
95th percentile per-packet one-way delay: 28.635 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 24.43 Mbit/s
95th percentile per-packet one-way delay: 30.492 ms
Loss rate: 0.50%
```
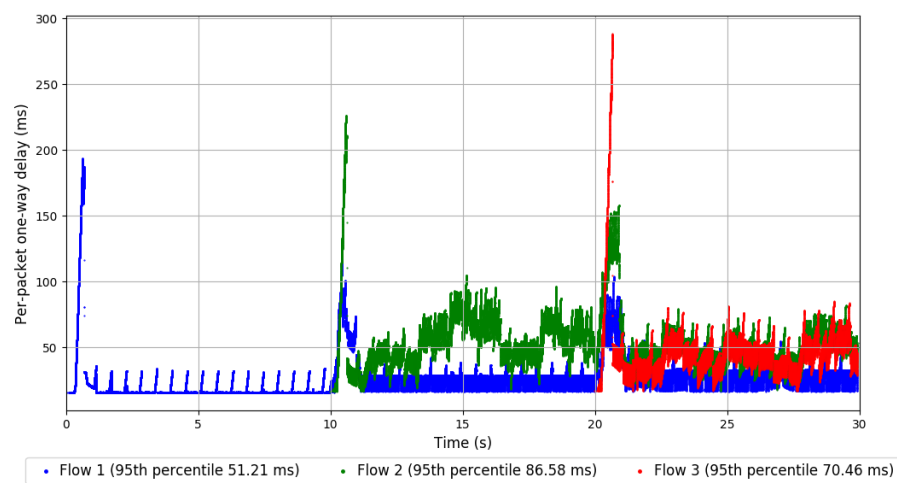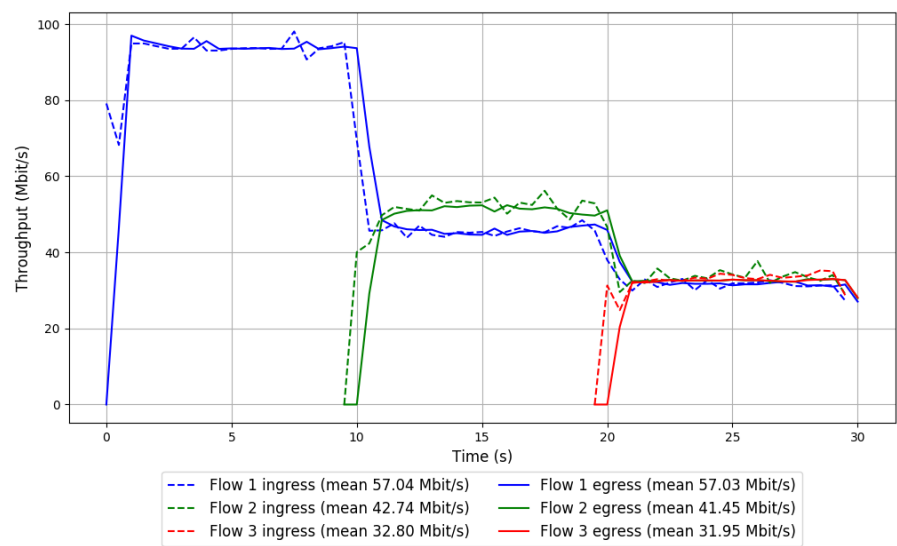
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 55.39 Mbit/s) --- Flow 1 egress (mean 55.41 Mbit/s)
Flow 2 ingress (mean 47.07 Mbit/s) --- Flow 2 egress (mean 47.06 Mbit/s)
Flow 3 ingress (mean 24.48 Mbit/s) --- Flow 3 egress (mean 24.43 Mbit/s)

Flow 1 (95th percentile 28.56 ms)   Flow 2 (95th percentile 28.64 ms)   Flow 3 (95th percentile 30.49 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2019-07-12 18:15:53
End at: 2019-07-12 18:16:23
Local clock offset: 7.771 ms
Remote clock offset: -4.373 ms


# Below is generated by plot.py at 2019-07-12 18:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.01 Mbit/s
95th percentile per-packet one-way delay: 29.224 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 55.26 Mbit/s
95th percentile per-packet one-way delay: 29.572 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 47.58 Mbit/s
95th percentile per-packet one-way delay: 28.626 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 24.33 Mbit/s
95th percentile per-packet one-way delay: 29.782 ms
Loss rate: 0.33%
```

Run 5: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 55.25 Mbit/s) —— Flow 1 egress (mean 55.26 Mbit/s)
- - - Flow 2 ingress (mean 47.59 Mbit/s) —— Flow 2 egress (mean 47.58 Mbit/s)
- - - Flow 3 ingress (mean 24.34 Mbit/s) —— Flow 3 egress (mean 24.33 Mbit/s)

• Flow 1 (95th percentile 29.57 ms)   • Flow 2 (95th percentile 28.63 ms)   • Flow 3 (95th percentile 29.78 ms)

34

```
Run 1: Statistics of FillP

Start at: 2019-07-12 16:25:02
End at: 2019-07-12 16:25:32
Local clock offset: 0.007 ms
Remote clock offset: 0.13 ms

# Below is generated by plot.py at 2019-07-12 18:31:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.29 Mbit/s
95th percentile per-packet one-way delay: 75.285 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 57.03 Mbit/s
95th percentile per-packet one-way delay: 51.210 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 41.45 Mbit/s
95th percentile per-packet one-way delay: 86.581 ms
Loss rate: 3.08%
-- Flow 3:
Average throughput: 31.95 Mbit/s
95th percentile per-packet one-way delay: 70.462 ms
Loss rate: 2.82%
```
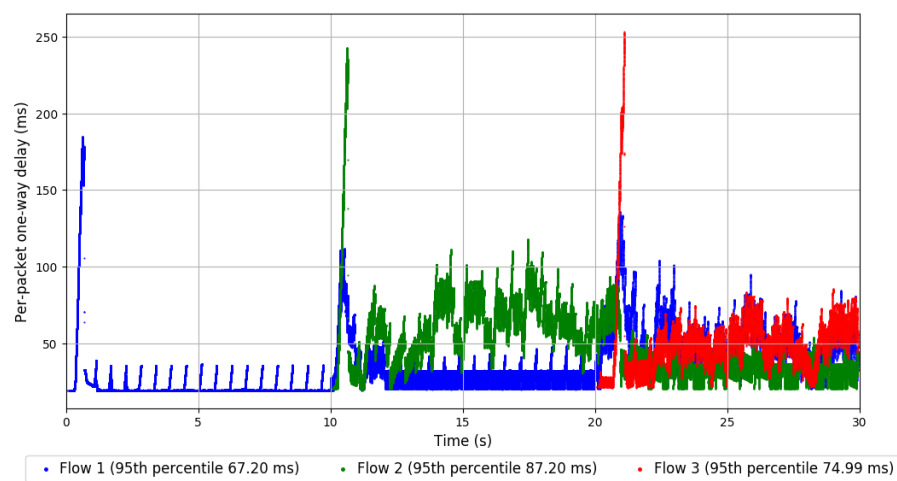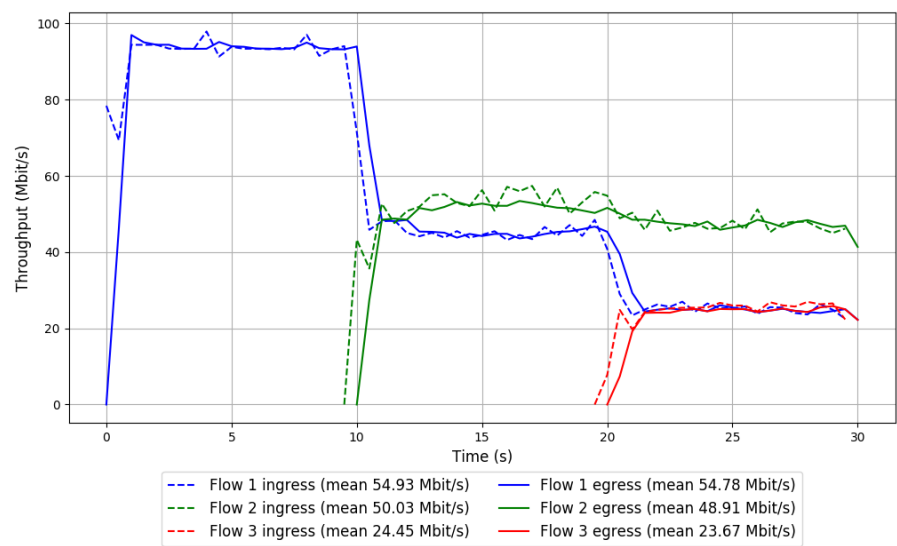
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 57.04 Mbit/s) --- Flow 1 egress (mean 57.03 Mbit/s)
Flow 2 ingress (mean 42.74 Mbit/s) --- Flow 2 egress (mean 41.45 Mbit/s)
Flow 3 ingress (mean 32.80 Mbit/s) --- Flow 3 egress (mean 31.95 Mbit/s)

Flow 1 (95th percentile 51.21 ms)   Flow 2 (95th percentile 86.58 ms)   Flow 3 (95th percentile 70.46 ms)
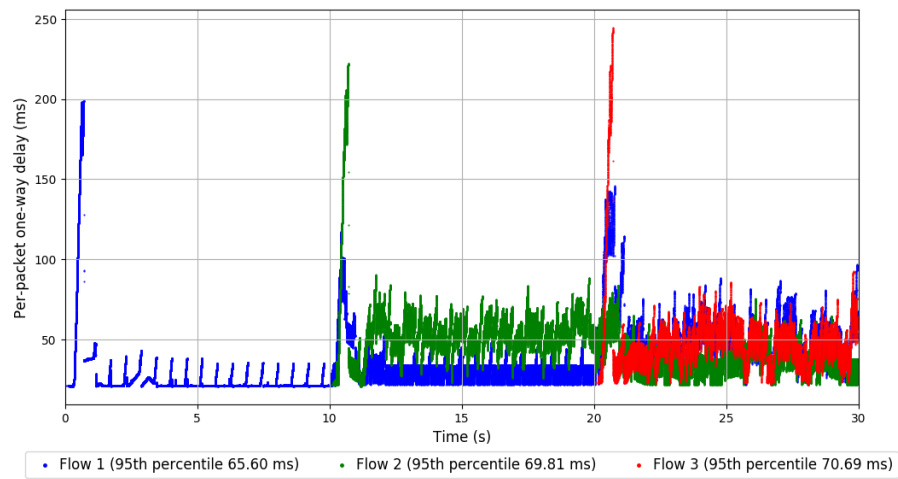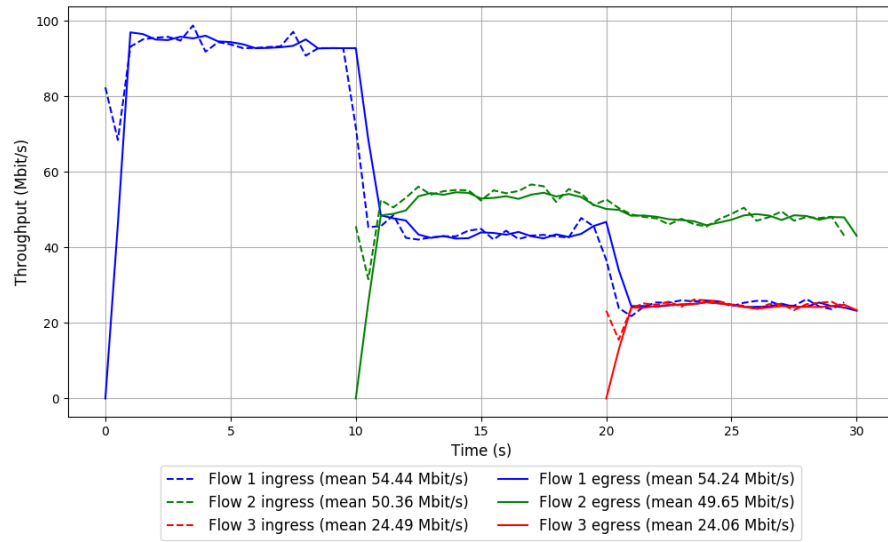
36

```
Run 2: Statistics of FillP

Start at: 2019-07-12 16:54:38
End at: 2019-07-12 16:55:08
Local clock offset: 3.309 ms
Remote clock offset: -1.598 ms


# Below is generated by plot.py at 2019-07-12 18:31:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.32 Mbit/s
95th percentile per-packet one-way delay: 73.714 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 62.16 Mbit/s
95th percentile per-packet one-way delay: 46.977 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 38.01 Mbit/s
95th percentile per-packet one-way delay: 92.834 ms
Loss rate: 4.18%
-- Flow 3:
Average throughput: 23.69 Mbit/s
95th percentile per-packet one-way delay: 82.463 ms
Loss rate: 4.88%
```
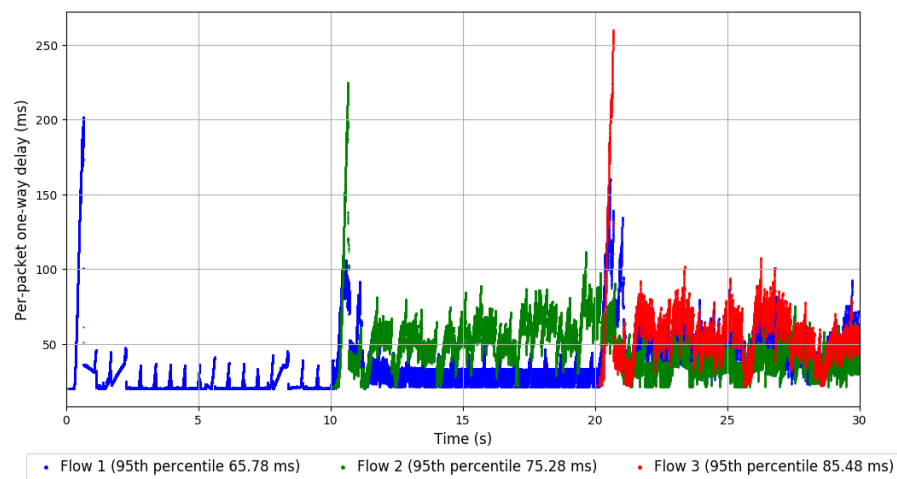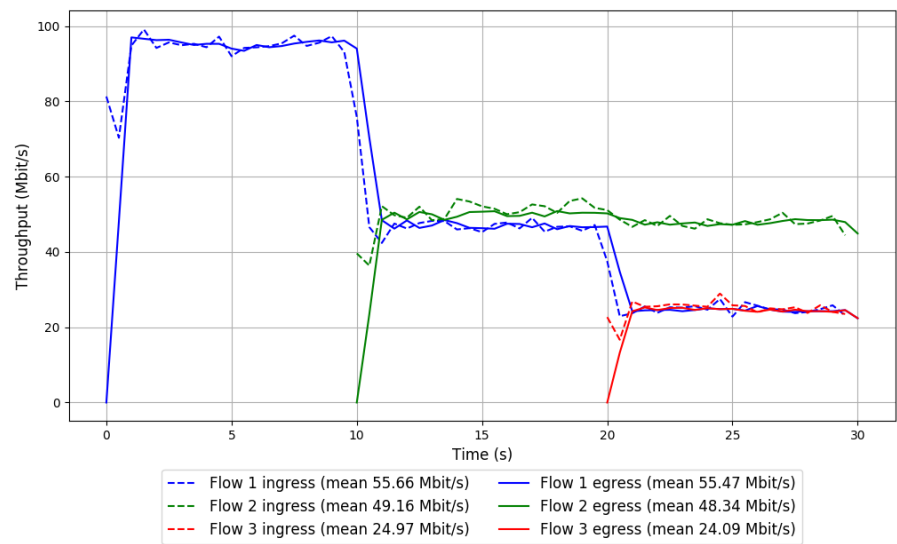
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2019-07-12 17:24:18
End at: 2019-07-12 17:24:48
Local clock offset: 2.562 ms
Remote clock offset: -1.5 ms

# Below is generated by plot.py at 2019-07-12 18:31:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.21 Mbit/s
95th percentile per-packet one-way delay: 80.976 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 54.78 Mbit/s
95th percentile per-packet one-way delay: 67.198 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 48.91 Mbit/s
95th percentile per-packet one-way delay: 87.197 ms
Loss rate: 2.35%
-- Flow 3:
Average throughput: 23.67 Mbit/s
95th percentile per-packet one-way delay: 74.990 ms
Loss rate: 3.48%
```
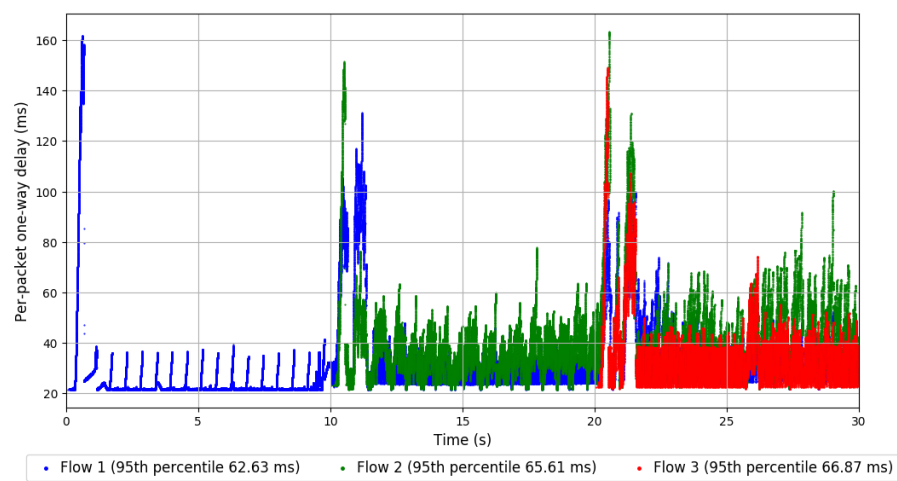
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2019-07-12 17:53:37
End at: 2019-07-12 17:54:07
Local clock offset: 2.302 ms
Remote clock offset: -4.553 ms

# Below is generated by plot.py at 2019-07-12 18:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.28 Mbit/s
95th percentile per-packet one-way delay: 68.886 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 54.24 Mbit/s
95th percentile per-packet one-way delay: 65.600 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 49.65 Mbit/s
95th percentile per-packet one-way delay: 69.806 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 24.06 Mbit/s
95th percentile per-packet one-way delay: 70.689 ms
Loss rate: 1.91%
```
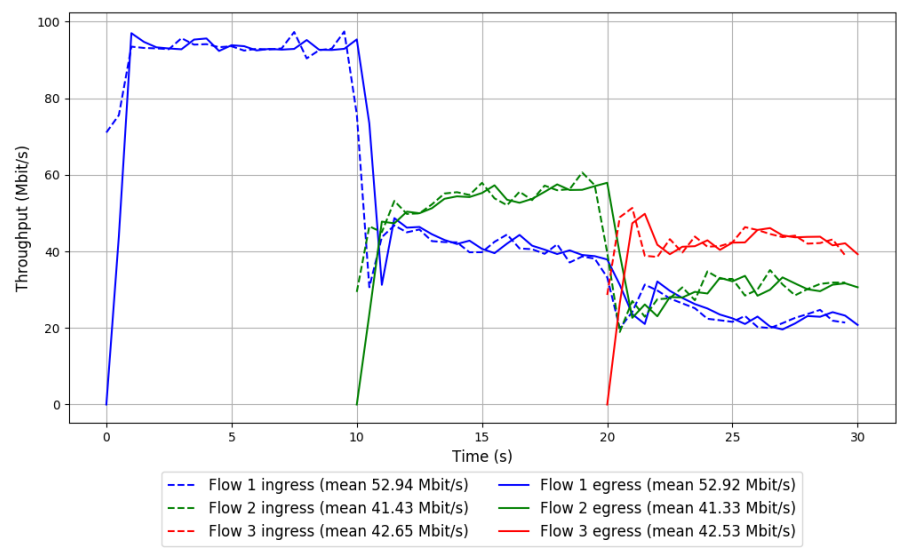
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-07-12 18:23:04
End at: 2019-07-12 18:23:34
Local clock offset: 9.305 ms
Remote clock offset: -3.237 ms


# Below is generated by plot.py at 2019-07-12 18:32:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.64 Mbit/s
95th percentile per-packet one-way delay: 75.213 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 55.47 Mbit/s
95th percentile per-packet one-way delay: 65.778 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 48.34 Mbit/s
95th percentile per-packet one-way delay: 75.277 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 24.09 Mbit/s
95th percentile per-packet one-way delay: 85.482 ms
Loss rate: 3.77%
```
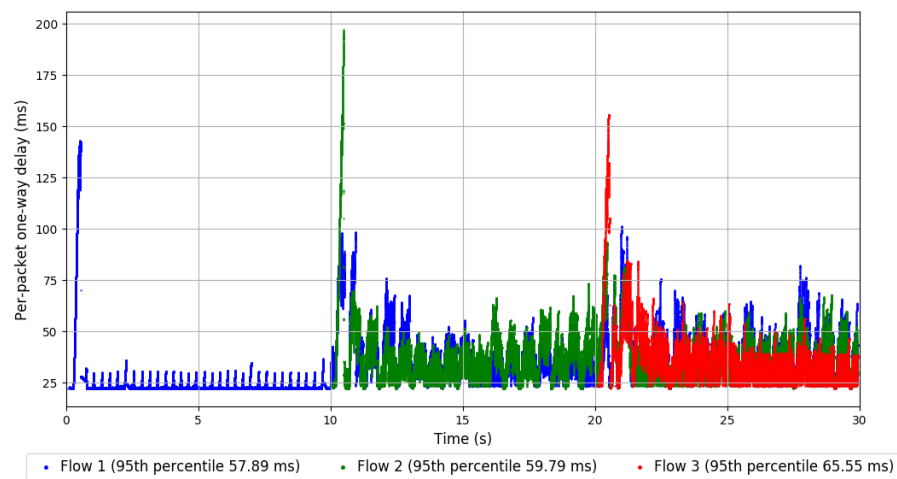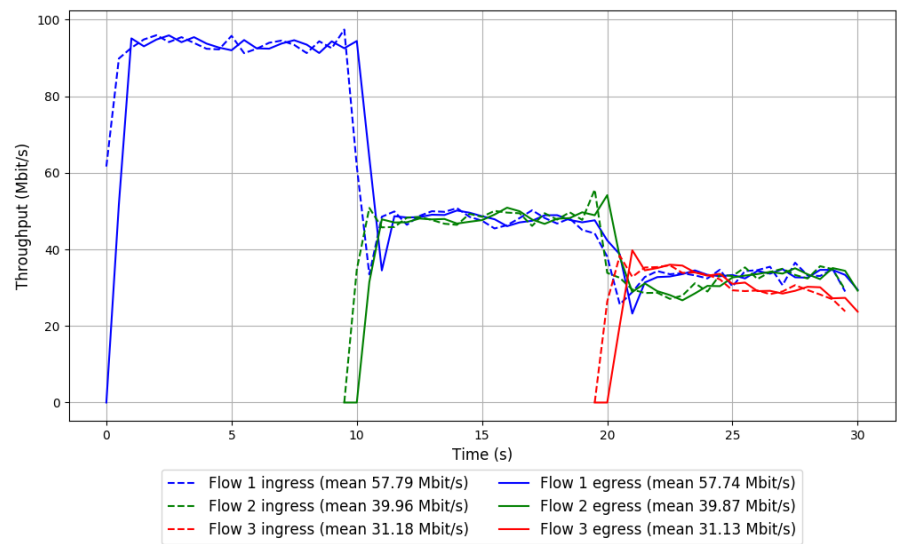
Run 5: Report of FillP — Data Link

- - - - Flow 1 ingress (mean 55.66 Mbit/s)   ——— Flow 1 egress (mean 55.47 Mbit/s)
- - - - Flow 2 ingress (mean 49.16 Mbit/s)   ——— Flow 2 egress (mean 48.34 Mbit/s)
- - - - Flow 3 ingress (mean 24.97 Mbit/s)   ——— Flow 3 egress (mean 24.09 Mbit/s)

• Flow 1 (95th percentile 65.78 ms)   • Flow 2 (95th percentile 75.28 ms)   • Flow 3 (95th percentile 85.48 ms)

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```
Run 1: Statistics of FillP-Sheep

Start at: 2019-07-12 16:04:05
End at: 2019-07-12 16:04:35
Local clock offset: 5.91 ms
Remote clock offset: -2.291 ms


# Below is generated by plot.py at 2019-07-12 18:32:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.52 Mbit/s
95th percentile per-packet one-way delay: 64.911 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 52.92 Mbit/s
95th percentile per-packet one-way delay: 62.633 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 41.33 Mbit/s
95th percentile per-packet one-way delay: 65.610 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 42.53 Mbit/s
95th percentile per-packet one-way delay: 66.866 ms
Loss rate: 0.41%
```
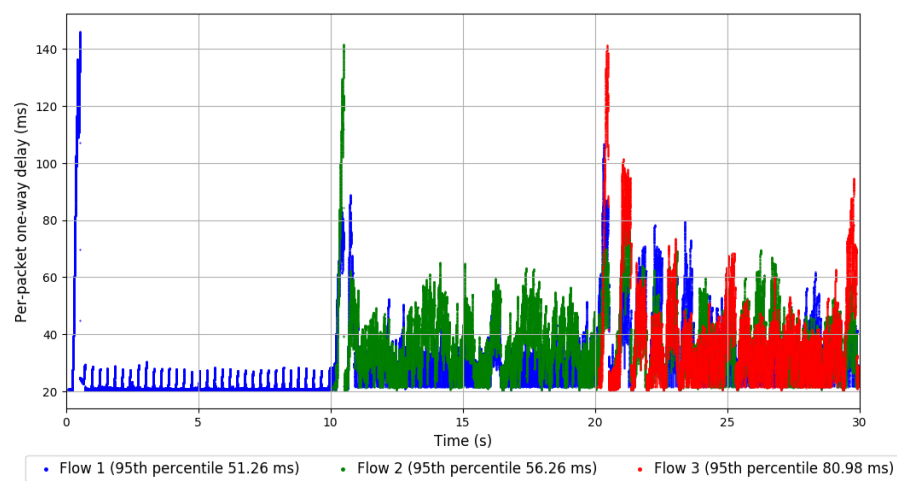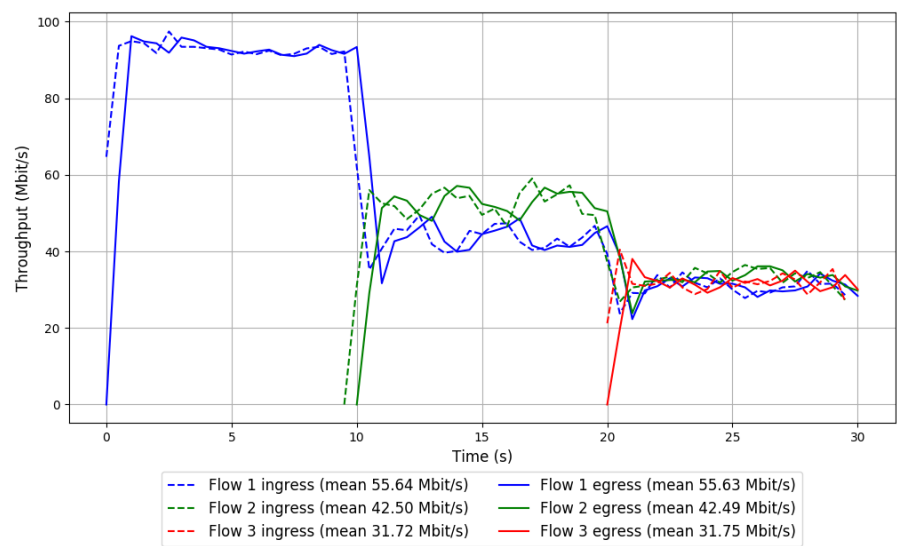
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-07-12 16:33:41
End at: 2019-07-12 16:34:11
Local clock offset: 3.972 ms
Remote clock offset: -2.54 ms


# Below is generated by plot.py at 2019-07-12 18:32:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.67 Mbit/s
95th percentile per-packet one-way delay: 59.522 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 57.74 Mbit/s
95th percentile per-packet one-way delay: 57.891 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.87 Mbit/s
95th percentile per-packet one-way delay: 59.794 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 31.13 Mbit/s
95th percentile per-packet one-way delay: 65.554 ms
Loss rate: 0.41%
```
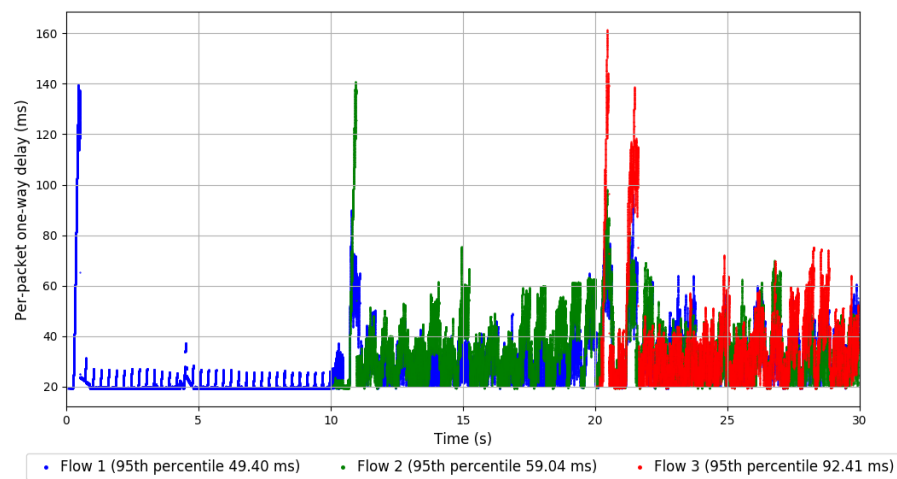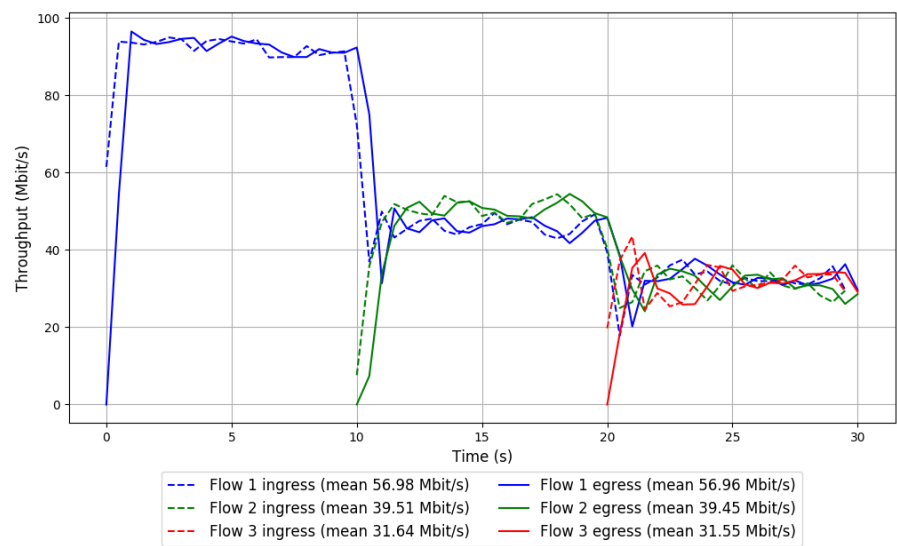
Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-07-12 17:03:31
End at: 2019-07-12 17:04:02
Local clock offset: 2.29 ms
Remote clock offset: -2.678 ms


# Below is generated by plot.py at 2019-07-12 18:32:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 56.814 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 55.63 Mbit/s
95th percentile per-packet one-way delay: 51.264 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 42.49 Mbit/s
95th percentile per-packet one-way delay: 56.260 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 80.981 ms
Loss rate: 0.14%
```
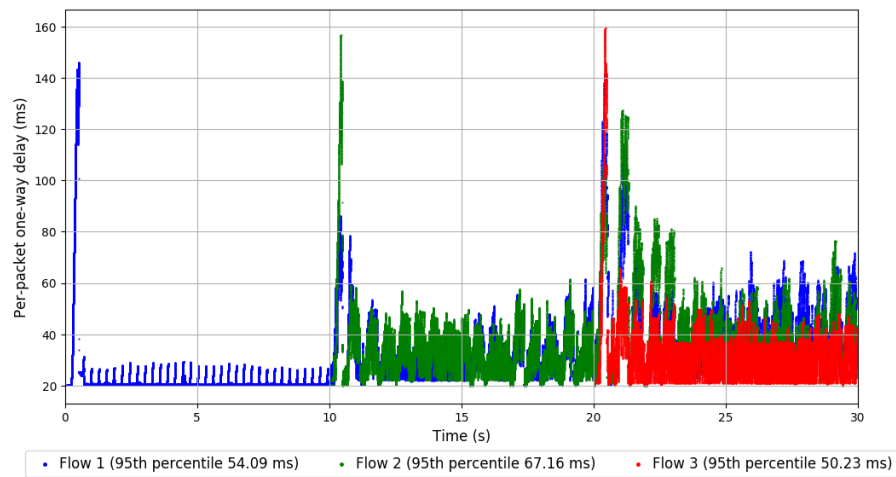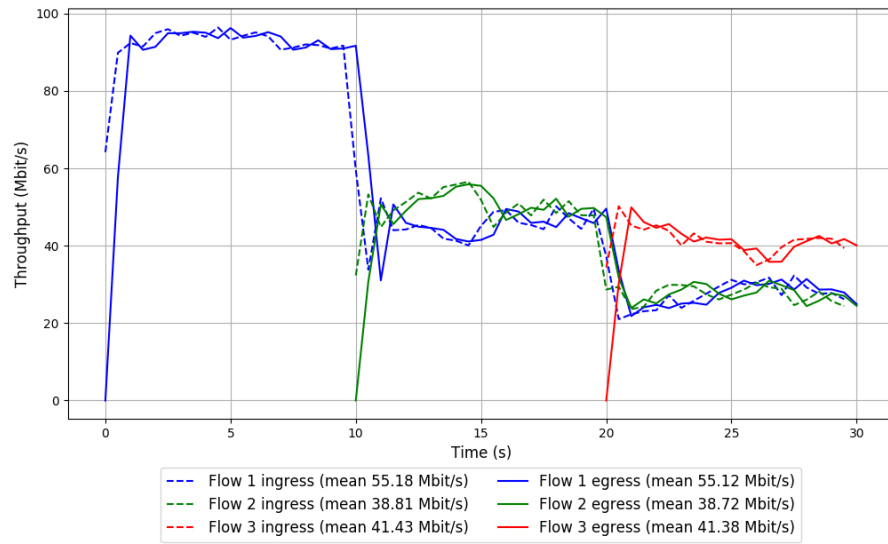
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 55.64 Mbit/s) --- Flow 1 egress (mean 55.63 Mbit/s)
Flow 2 ingress (mean 42.50 Mbit/s) --- Flow 2 egress (mean 42.49 Mbit/s)
Flow 3 ingress (mean 31.72 Mbit/s) --- Flow 3 egress (mean 31.75 Mbit/s)

Flow 1 (95th percentile 51.26 ms)   Flow 2 (95th percentile 56.26 ms)   Flow 3 (95th percentile 80.98 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-07-12 17:32:54
End at: 2019-07-12 17:33:24
Local clock offset: 2.575 ms
Remote clock offset: -1.905 ms


# Below is generated by plot.py at 2019-07-12 18:32:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.68 Mbit/s
95th percentile per-packet one-way delay: 56.495 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 49.398 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.45 Mbit/s
95th percentile per-packet one-way delay: 59.041 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 31.55 Mbit/s
95th percentile per-packet one-way delay: 92.412 ms
Loss rate: 0.41%
```
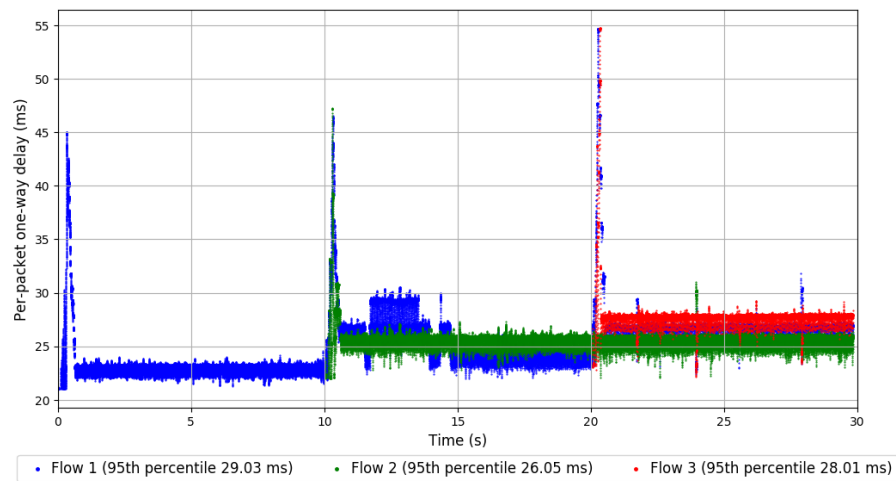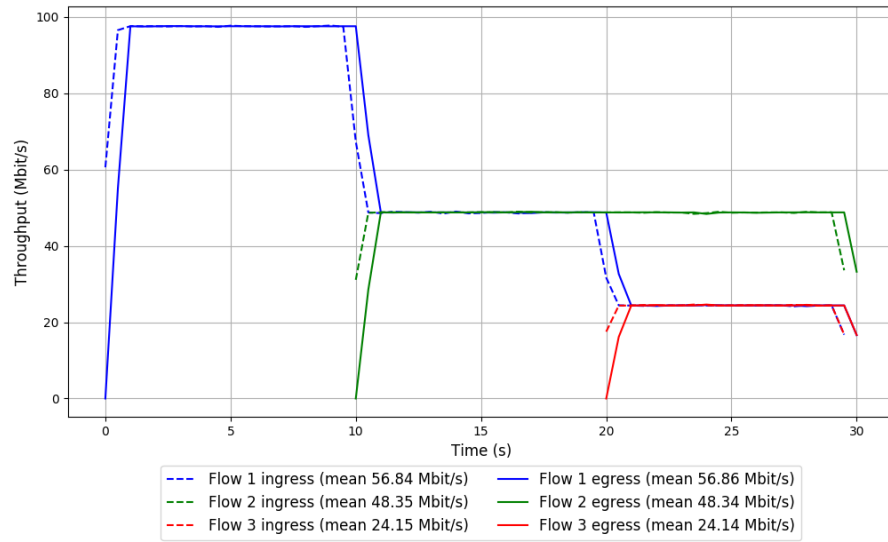
Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-07-12 18:02:14
End at: 2019-07-12 18:02:44
Local clock offset: 5.468 ms
Remote clock offset: -3.069 ms


# Below is generated by plot.py at 2019-07-12 18:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.63 Mbit/s
95th percentile per-packet one-way delay: 56.837 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 55.12 Mbit/s
95th percentile per-packet one-way delay: 54.095 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 67.158 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 41.38 Mbit/s
95th percentile per-packet one-way delay: 50.230 ms
Loss rate: 0.37%
```

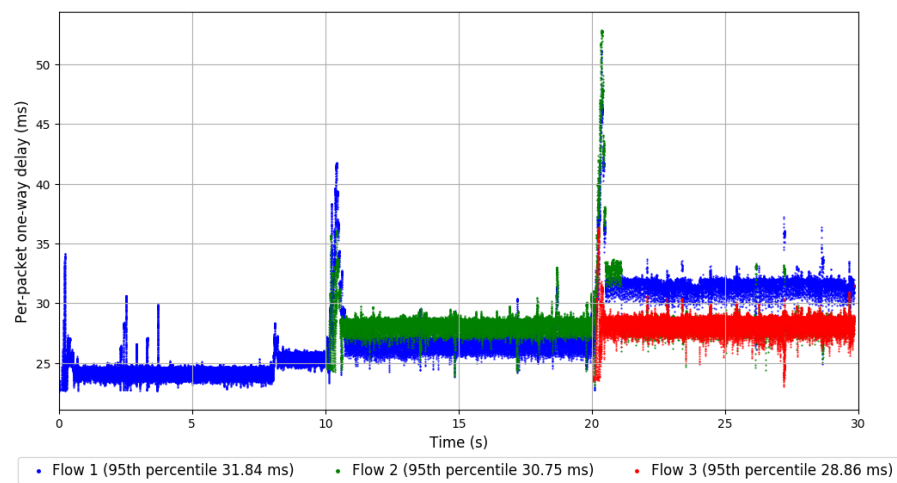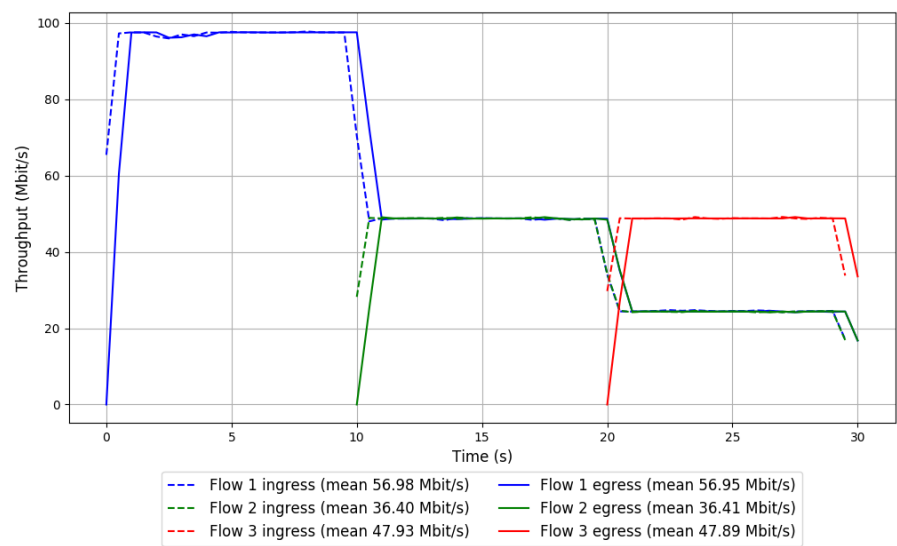# Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-07-12 16:00:22
End at: 2019-07-12 16:00:52
Local clock offset: 8.006 ms
Remote clock offset: -0.981 ms


# Below is generated by plot.py at 2019-07-12 18:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.88 Mbit/s
95th percentile per-packet one-way delay: 27.927 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 56.86 Mbit/s
95th percentile per-packet one-way delay: 29.033 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 48.34 Mbit/s
95th percentile per-packet one-way delay: 26.052 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 24.14 Mbit/s
95th percentile per-packet one-way delay: 28.009 ms
Loss rate: 0.32%
```
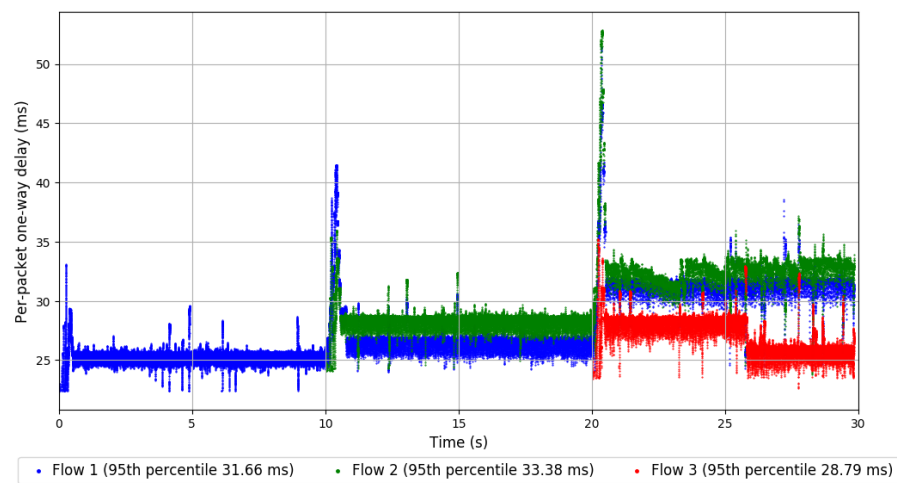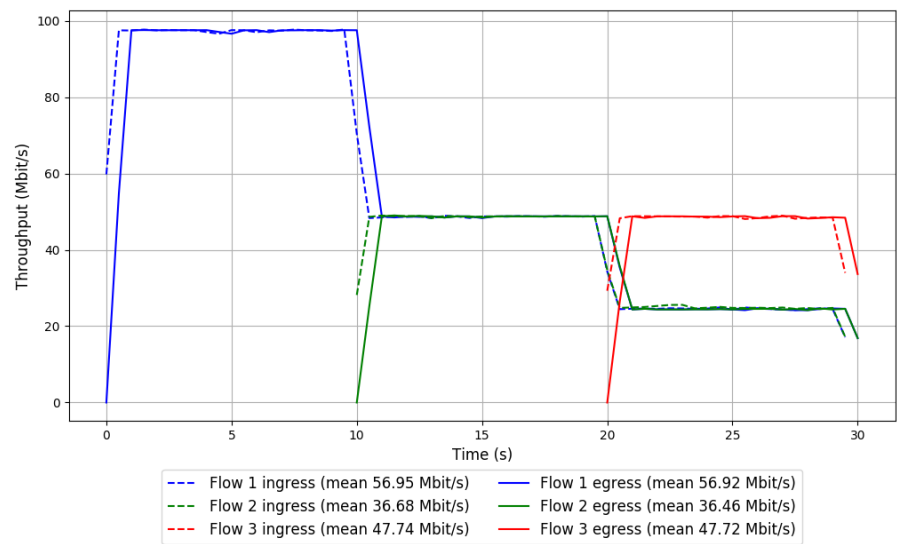
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-07-12 16:29:59
End at: 2019-07-12 16:30:29
Local clock offset: 3.765 ms
Remote clock offset: -3.015 ms

# Below is generated by plot.py at 2019-07-12 18:32:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.86 Mbit/s
95th percentile per-packet one-way delay: 31.764 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 56.95 Mbit/s
95th percentile per-packet one-way delay: 31.838 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 36.41 Mbit/s
95th percentile per-packet one-way delay: 30.748 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 47.89 Mbit/s
95th percentile per-packet one-way delay: 28.858 ms
Loss rate: 0.32%
```
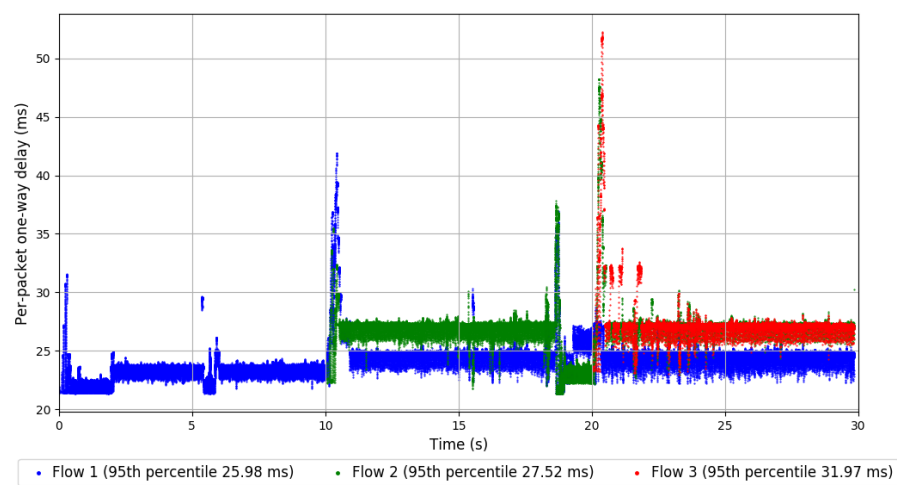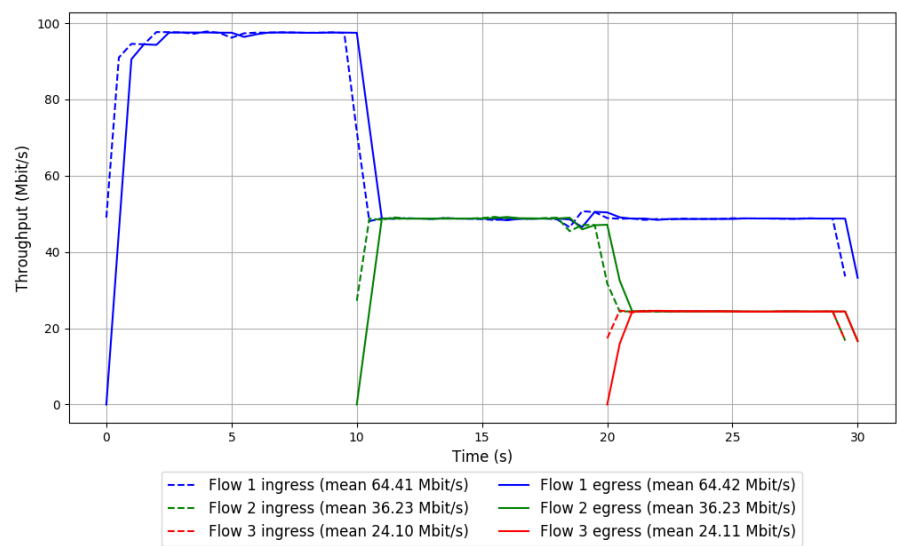
Run 2: Report of Indigo — Data Link

Flow 1 ingress (mean 56.98 Mbit/s) — — — Flow 1 egress (mean 56.95 Mbit/s)
Flow 2 ingress (mean 36.40 Mbit/s) — — — Flow 2 egress (mean 36.41 Mbit/s)
Flow 3 ingress (mean 47.93 Mbit/s) — — — Flow 3 egress (mean 47.89 Mbit/s)

Flow 1 (95th percentile 31.84 ms)   Flow 2 (95th percentile 30.75 ms)   Flow 3 (95th percentile 28.86 ms)

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```
Run 3: Statistics of Indigo

Start at: 2019-07-12 16:59:42
End at: 2019-07-12 17:00:12
Local clock offset: 3.59 ms
Remote clock offset: -3.548 ms


# Below is generated by plot.py at 2019-07-12 18:33:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.80 Mbit/s
95th percentile per-packet one-way delay: 32.681 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 56.92 Mbit/s
95th percentile per-packet one-way delay: 31.660 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 36.46 Mbit/s
95th percentile per-packet one-way delay: 33.379 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 47.72 Mbit/s
95th percentile per-packet one-way delay: 28.787 ms
Loss rate: 0.31%
```
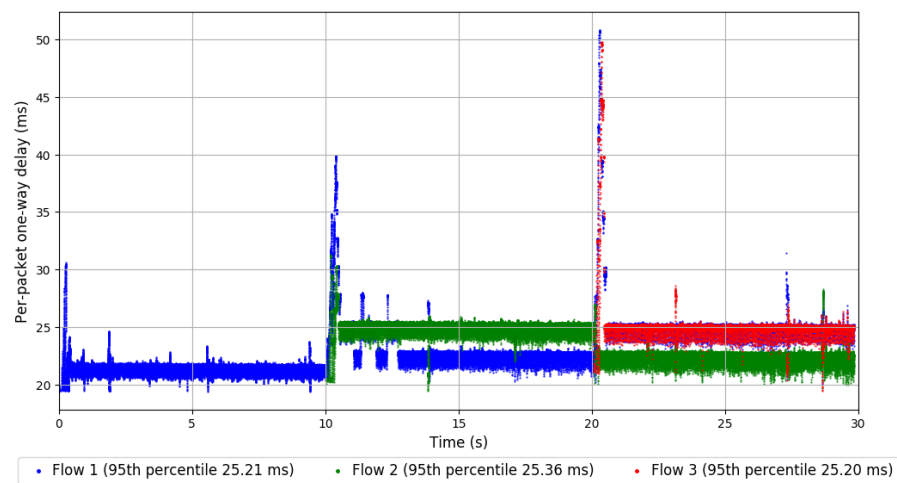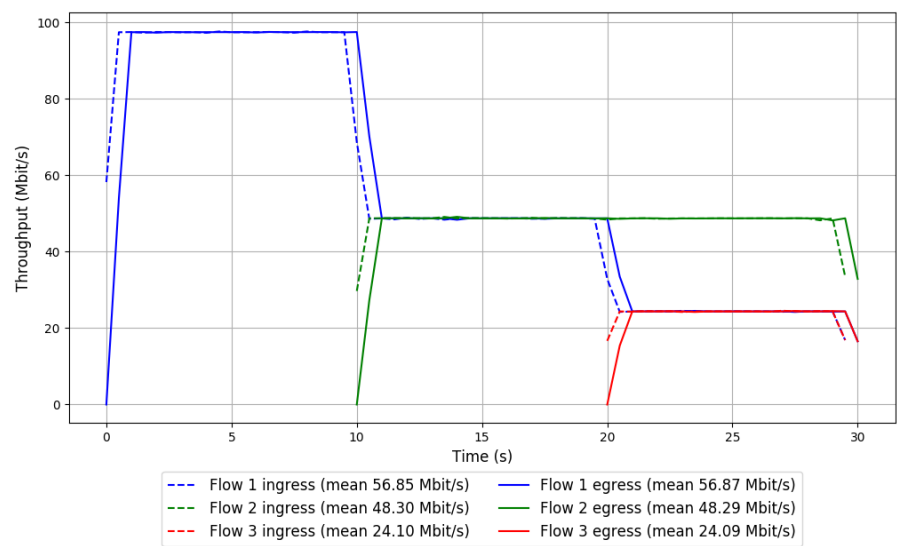
Run 3: Report of Indigo — Data Link

- - - - Flow 1 ingress (mean 56.95 Mbit/s) ——— Flow 1 egress (mean 56.92 Mbit/s)
- - - - Flow 2 ingress (mean 36.68 Mbit/s) ——— Flow 2 egress (mean 36.46 Mbit/s)
- - - - Flow 3 ingress (mean 47.74 Mbit/s) ——— Flow 3 egress (mean 47.72 Mbit/s)

• Flow 1 (95th percentile 31.66 ms)   • Flow 2 (95th percentile 33.38 ms)   • Flow 3 (95th percentile 28.79 ms)

```
Run 4: Statistics of Indigo

Start at: 2019-07-12 17:29:16
End at: 2019-07-12 17:29:46
Local clock offset: 2.692 ms
Remote clock offset: -3.465 ms


# Below is generated by plot.py at 2019-07-12 18:33:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 27.377 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 64.42 Mbit/s
95th percentile per-packet one-way delay: 25.979 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 36.23 Mbit/s
95th percentile per-packet one-way delay: 27.523 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 24.11 Mbit/s
95th percentile per-packet one-way delay: 31.971 ms
Loss rate: 0.34%
```
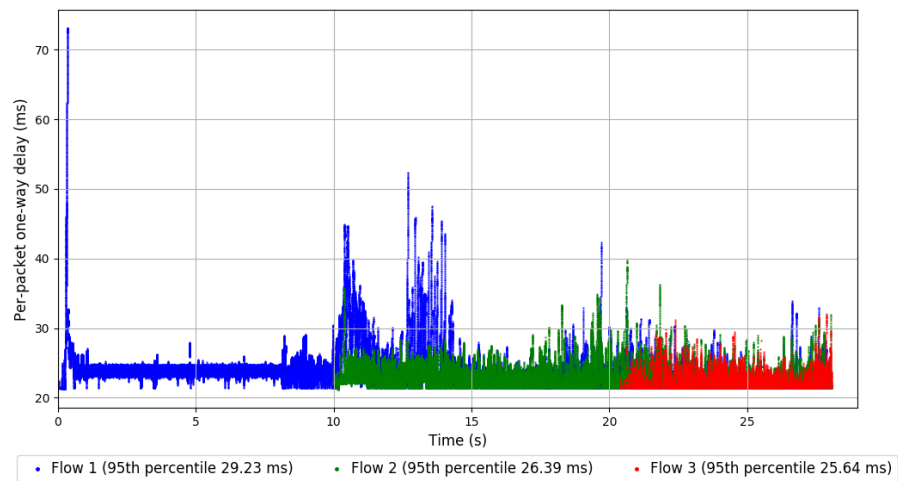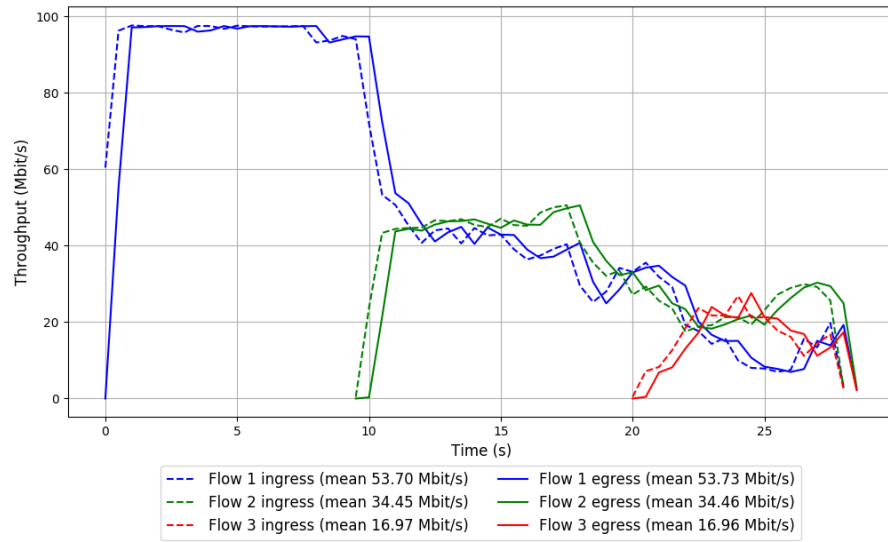
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-07-12 17:58:35
End at: 2019-07-12 17:59:05
Local clock offset: 2.663 ms
Remote clock offset: -3.107 ms

# Below is generated by plot.py at 2019-07-12 18:33:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.84 Mbit/s
95th percentile per-packet one-way delay: 25.314 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 56.87 Mbit/s
95th percentile per-packet one-way delay: 25.207 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 48.29 Mbit/s
95th percentile per-packet one-way delay: 25.356 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 24.09 Mbit/s
95th percentile per-packet one-way delay: 25.198 ms
Loss rate: 0.33%
```
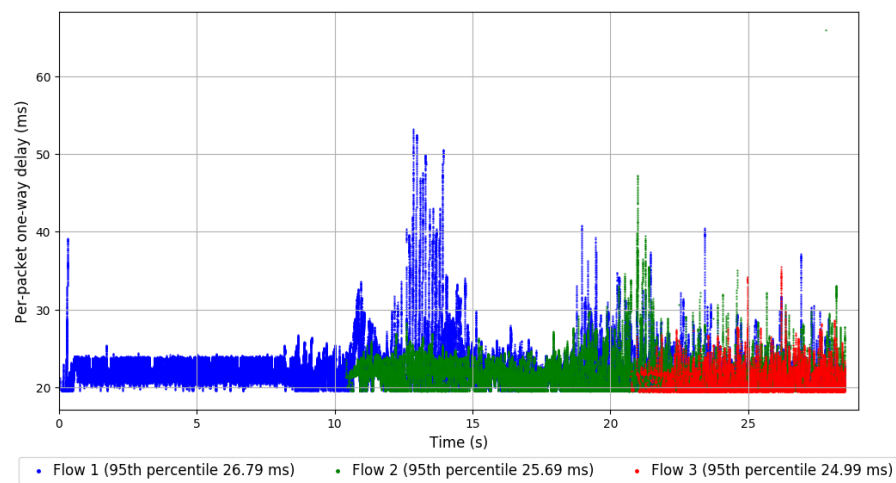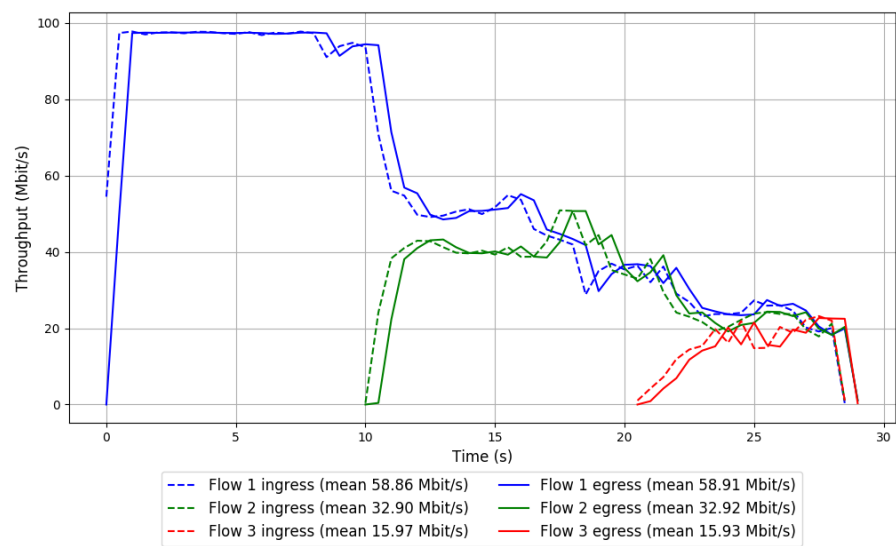
Run 5: Report of Indigo — Data Link

- - - Flow 1 ingress (mean 56.85 Mbit/s)   —— Flow 1 egress (mean 56.87 Mbit/s)
- - - Flow 2 ingress (mean 48.30 Mbit/s)   —— Flow 2 egress (mean 48.29 Mbit/s)
- - - Flow 3 ingress (mean 24.10 Mbit/s)   —— Flow 3 egress (mean 24.09 Mbit/s)

- Flow 1 (95th percentile 25.21 ms)   • Flow 2 (95th percentile 25.36 ms)   • Flow 3 (95th percentile 25.20 ms)
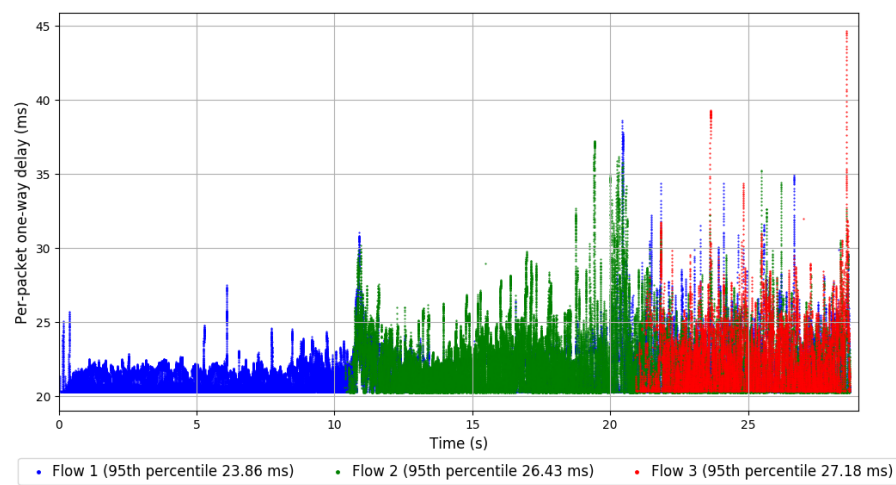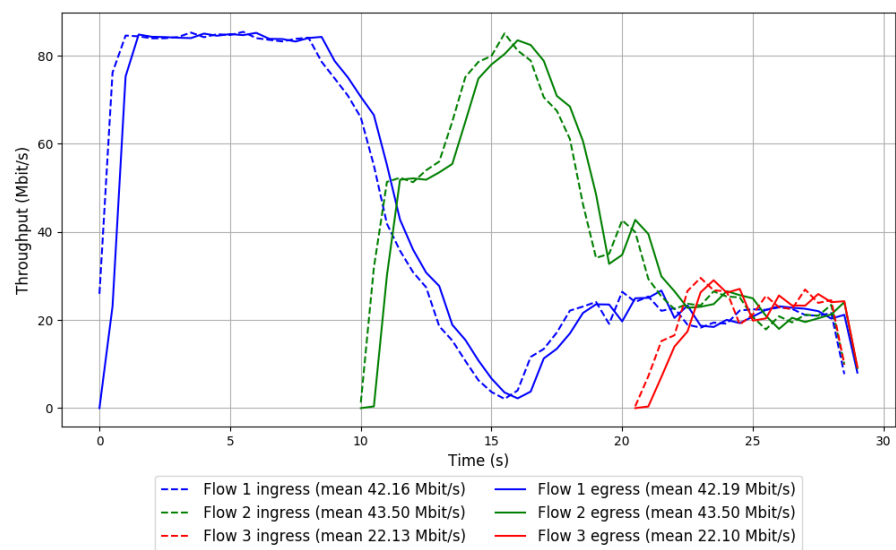
64

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-07-12 16:19:10
End at: 2019-07-12 16:19:40
Local clock offset: 3.581 ms
Remote clock offset: -2.166 ms


# Below is generated by plot.py at 2019-07-12 18:33:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.62 Mbit/s
95th percentile per-packet one-way delay: 27.945 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 53.73 Mbit/s
95th percentile per-packet one-way delay: 29.231 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 34.46 Mbit/s
95th percentile per-packet one-way delay: 26.394 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 16.96 Mbit/s
95th percentile per-packet one-way delay: 25.642 ms
Loss rate: 0.40%
```

Run 1: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 53.70 Mbit/s) —— Flow 1 egress (mean 53.73 Mbit/s)
- - - Flow 2 ingress (mean 34.45 Mbit/s) —— Flow 2 egress (mean 34.46 Mbit/s)
- - - Flow 3 ingress (mean 16.97 Mbit/s) —— Flow 3 egress (mean 16.96 Mbit/s)

• Flow 1 (95th percentile 29.23 ms)   • Flow 2 (95th percentile 26.39 ms)   • Flow 3 (95th percentile 25.64 ms)
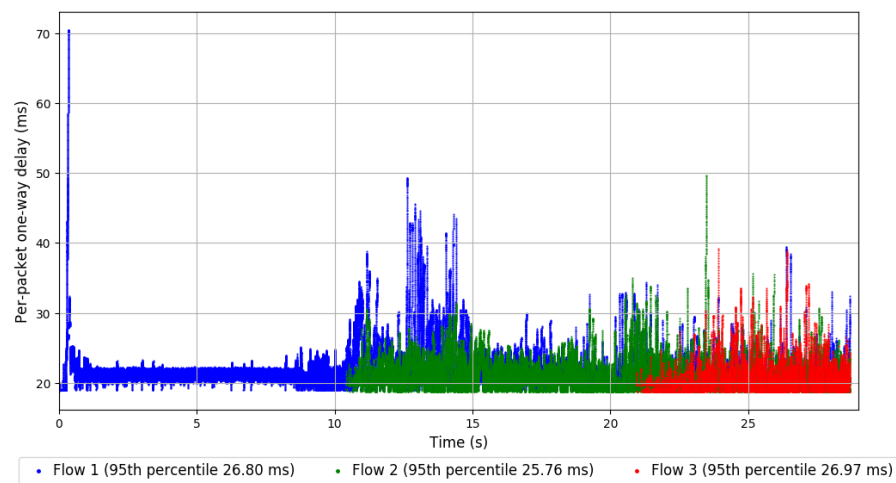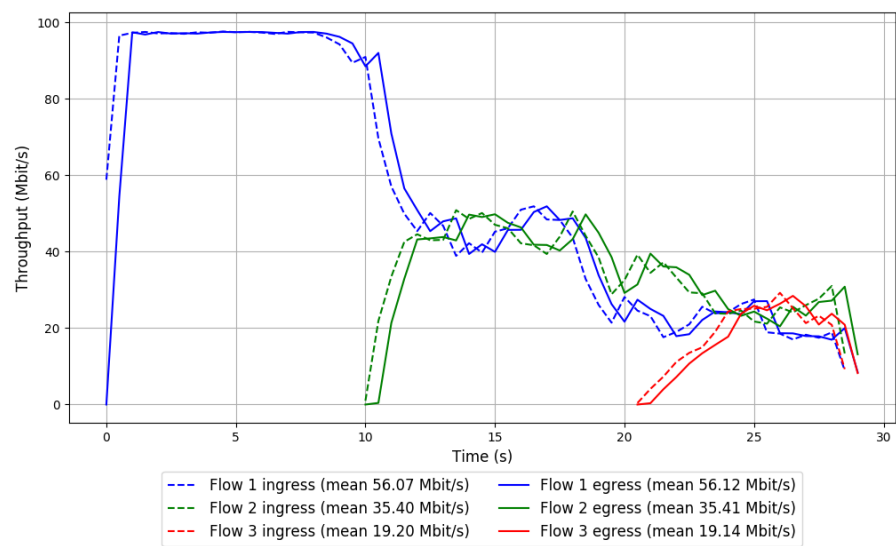
66

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-07-12 16:48:44
End at: 2019-07-12 16:49:14
Local clock offset: 2.885 ms
Remote clock offset: -1.113 ms

# Below is generated by plot.py at 2019-07-12 18:33:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.19 Mbit/s
95th percentile per-packet one-way delay: 26.359 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 58.91 Mbit/s
95th percentile per-packet one-way delay: 26.789 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 32.92 Mbit/s
95th percentile per-packet one-way delay: 25.690 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 15.93 Mbit/s
95th percentile per-packet one-way delay: 24.987 ms
Loss rate: 0.48%
```
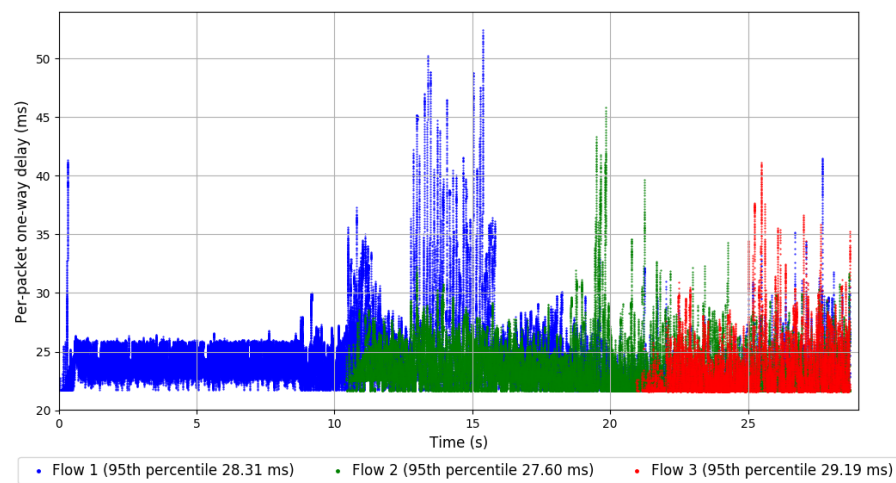
Run 2: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 58.86 Mbit/s) --- Flow 1 egress (mean 58.91 Mbit/s)
Flow 2 ingress (mean 32.90 Mbit/s) --- Flow 2 egress (mean 32.92 Mbit/s)
Flow 3 ingress (mean 15.97 Mbit/s) --- Flow 3 egress (mean 15.93 Mbit/s)

Flow 1 (95th percentile 26.79 ms)   Flow 2 (95th percentile 25.69 ms)   Flow 3 (95th percentile 24.99 ms)

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-07-12 17:18:30
End at: 2019-07-12 17:19:00
Local clock offset: 3.067 ms
Remote clock offset: -1.649 ms


# Below is generated by plot.py at 2019-07-12 18:33:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.96 Mbit/s
95th percentile per-packet one-way delay: 25.370 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 42.19 Mbit/s
95th percentile per-packet one-way delay: 23.864 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 43.50 Mbit/s
95th percentile per-packet one-way delay: 26.435 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 22.10 Mbit/s
95th percentile per-packet one-way delay: 27.177 ms
Loss rate: 0.55%
```

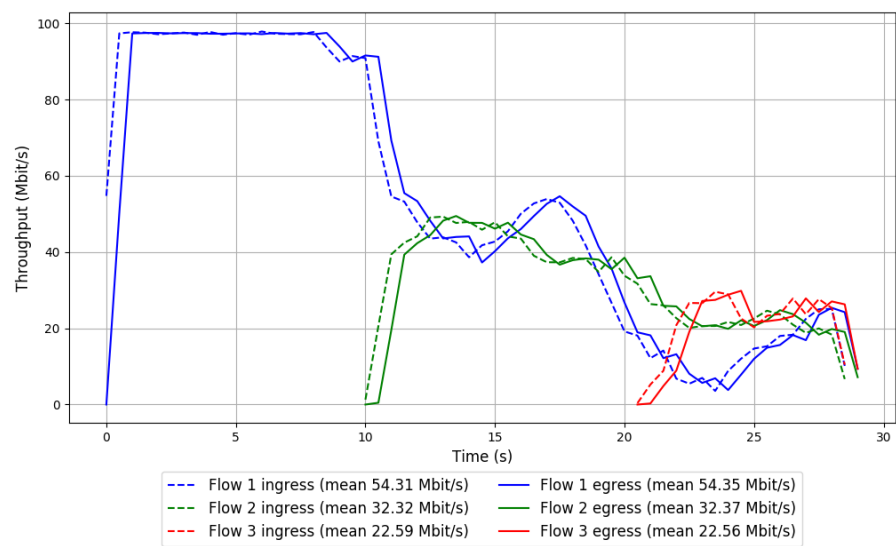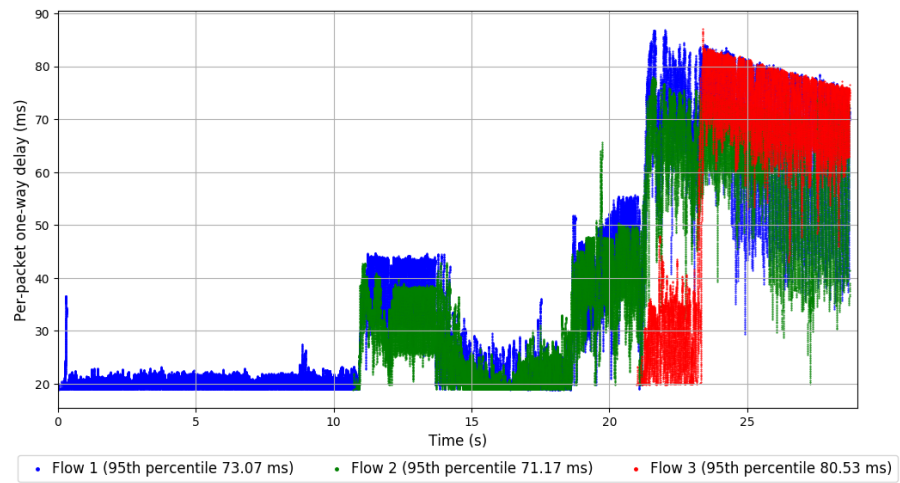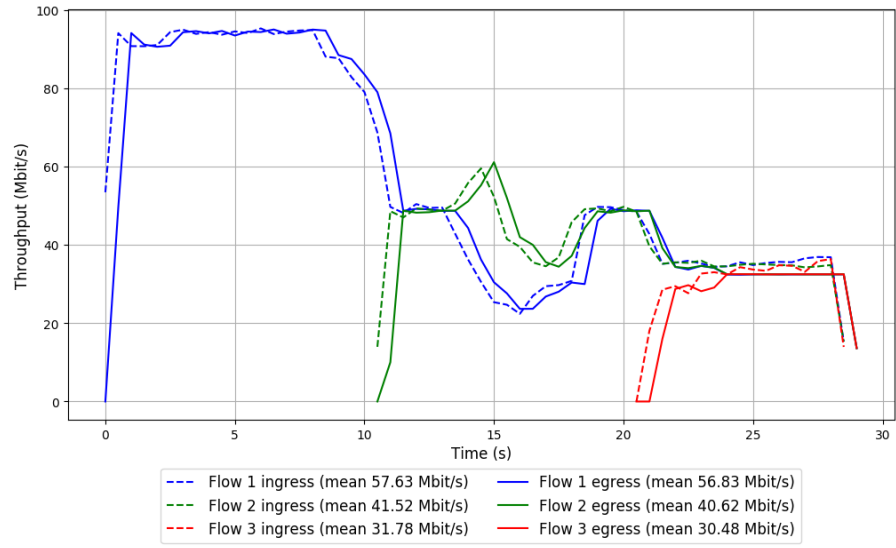Run 3: Report of Indigo-MusesC3 — Data Link

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-07-12 17:47:46
End at: 2019-07-12 17:48:16
Local clock offset: 2.849 ms
Remote clock offset: -1.906 ms

# Below is generated by plot.py at 2019-07-12 18:33:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.92 Mbit/s
95th percentile per-packet one-way delay: 26.406 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 56.12 Mbit/s
95th percentile per-packet one-way delay: 26.801 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 35.41 Mbit/s
95th percentile per-packet one-way delay: 25.763 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 19.14 Mbit/s
95th percentile per-packet one-way delay: 26.974 ms
Loss rate: 0.64%
```

Run 4: Report of Indigo-MusesC3 — Data Link

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```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-07-12 18:17:08
End at: 2019-07-12 18:17:38
Local clock offset: 8.592 ms
Remote clock offset: -4.517 ms


# Below is generated by plot.py at 2019-07-12 18:34:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.13 Mbit/s
95th percentile per-packet one-way delay: 28.136 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 54.35 Mbit/s
95th percentile per-packet one-way delay: 28.308 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 32.37 Mbit/s
95th percentile per-packet one-way delay: 27.602 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 22.56 Mbit/s
95th percentile per-packet one-way delay: 29.191 ms
Loss rate: 0.50%
```
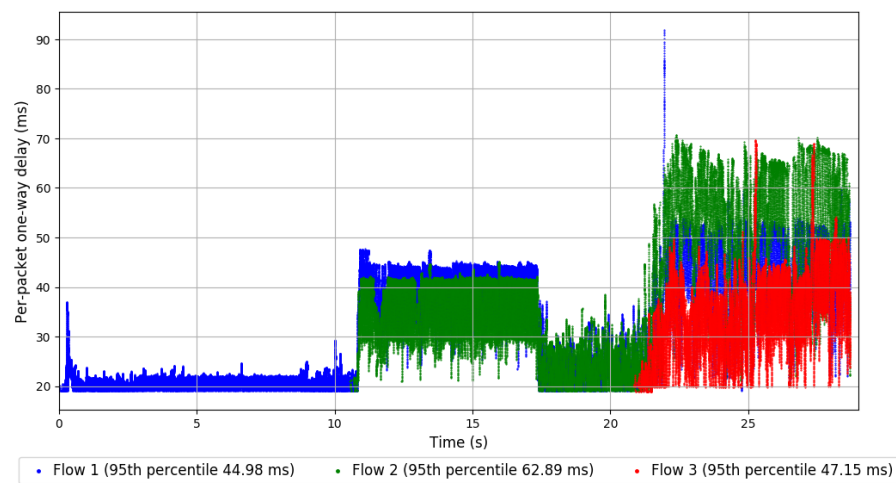
Run 5: Report of Indigo-MusesC3 — Data Link

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```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-07-12 15:57:58
End at: 2019-07-12 15:58:28
Local clock offset: 7.856 ms
Remote clock offset: -0.159 ms


# Below is generated by plot.py at 2019-07-12 18:34:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.53 Mbit/s
95th percentile per-packet one-way delay: 74.947 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 56.83 Mbit/s
95th percentile per-packet one-way delay: 73.072 ms
Loss rate: 1.40%
-- Flow 2:
Average throughput: 40.62 Mbit/s
95th percentile per-packet one-way delay: 71.167 ms
Loss rate: 2.29%
-- Flow 3:
Average throughput: 30.48 Mbit/s
95th percentile per-packet one-way delay: 80.528 ms
Loss rate: 4.43%
```
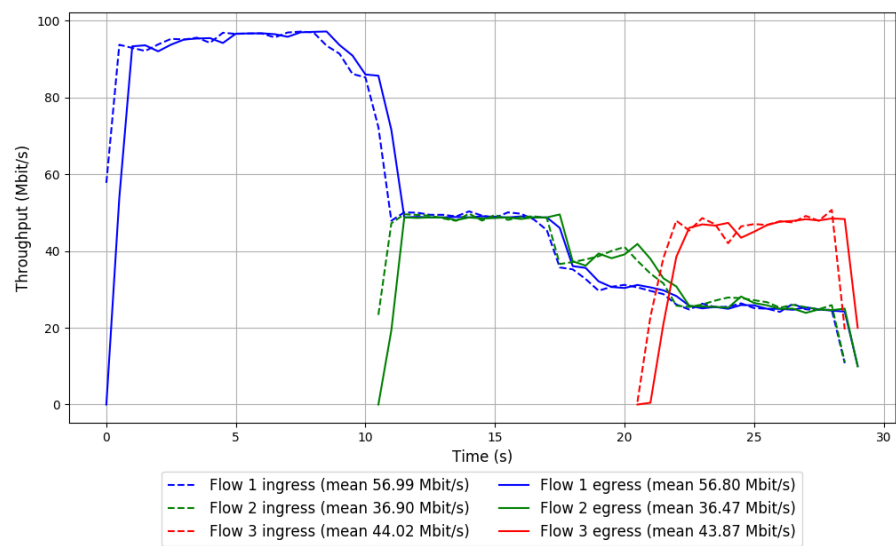
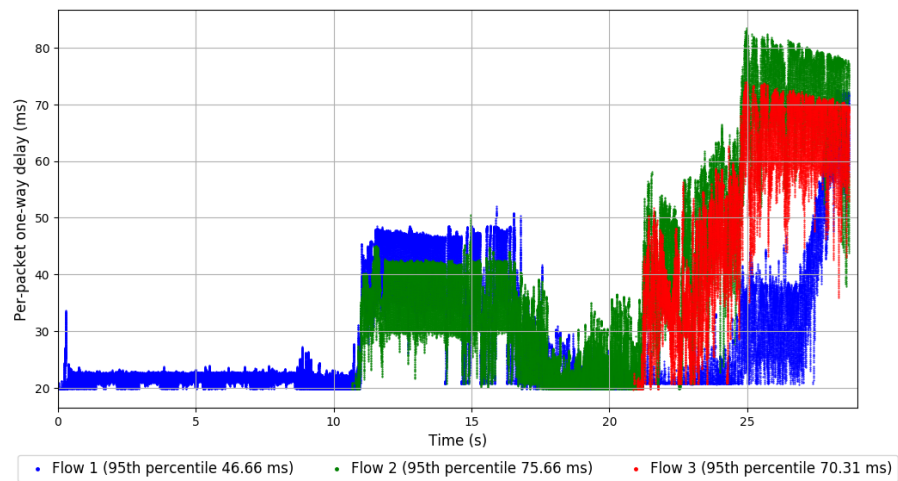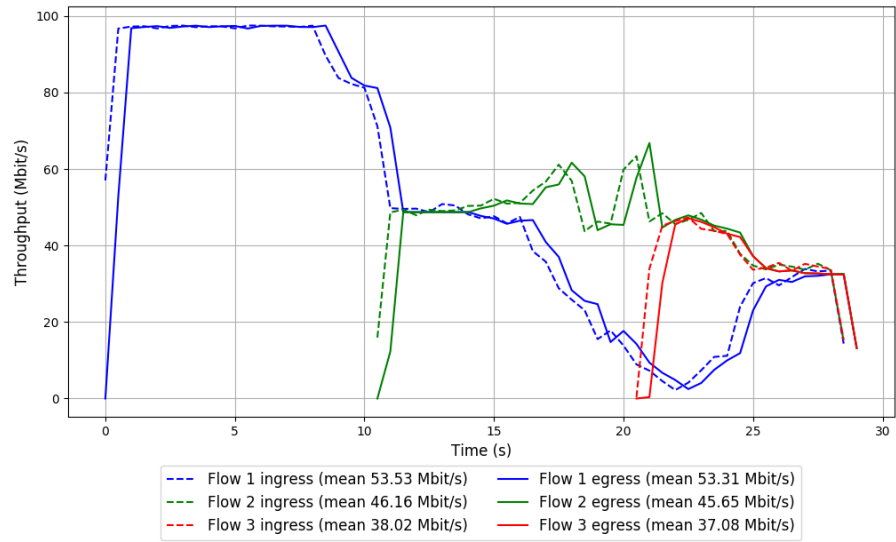Run 1: Report of Indigo-MusesC5 — Data Link

- - - Flow 1 ingress (mean 57.63 Mbit/s) ——— Flow 1 egress (mean 56.83 Mbit/s)
- - - Flow 2 ingress (mean 41.52 Mbit/s) ——— Flow 2 egress (mean 40.62 Mbit/s)
- - - Flow 3 ingress (mean 31.78 Mbit/s) ——— Flow 3 egress (mean 30.48 Mbit/s)

• Flow 1 (95th percentile 73.07 ms)   • Flow 2 (95th percentile 71.17 ms)   • Flow 3 (95th percentile 80.53 ms)

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-07-12 16:27:35
End at: 2019-07-12 16:28:05
Local clock offset: 1.07 ms
Remote clock offset: -2.11 ms


# Below is generated by plot.py at 2019-07-12 18:34:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.93 Mbit/s
95th percentile per-packet one-way delay: 51.836 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 56.80 Mbit/s
95th percentile per-packet one-way delay: 44.981 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 36.47 Mbit/s
95th percentile per-packet one-way delay: 62.891 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 43.87 Mbit/s
95th percentile per-packet one-way delay: 47.148 ms
Loss rate: 0.67%
```

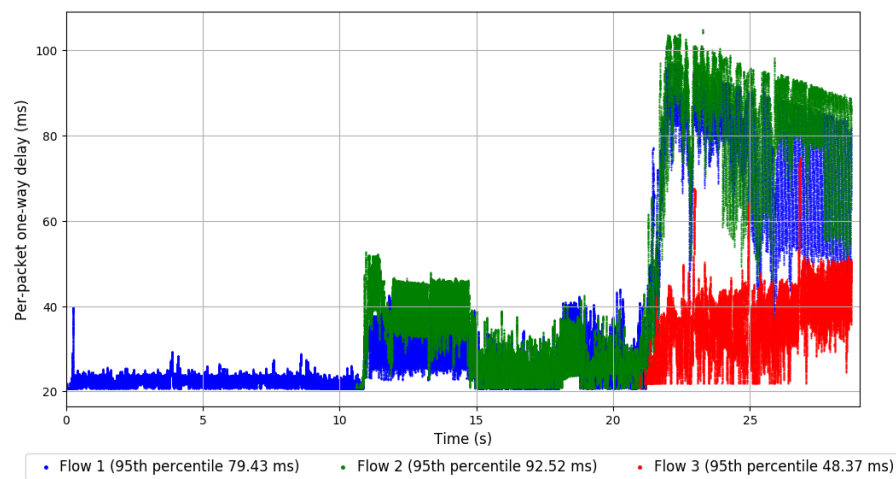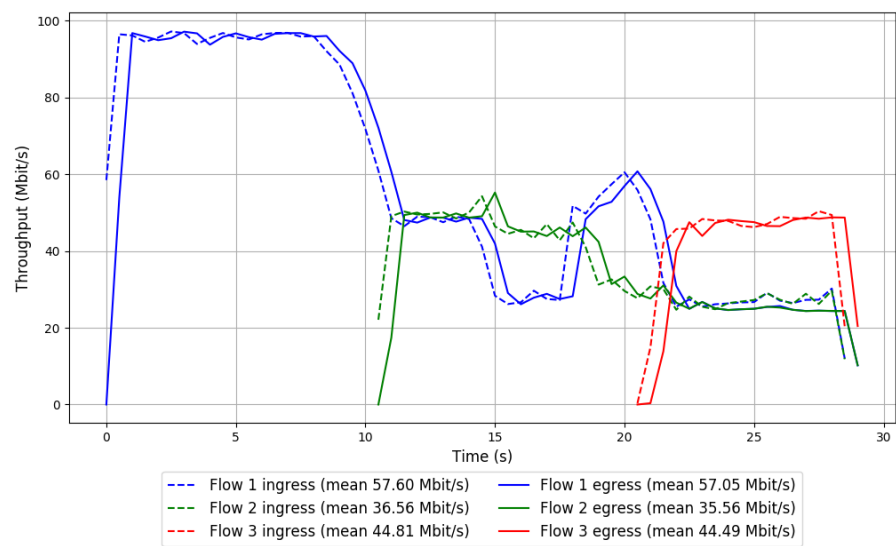Run 2: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 56.99 Mbit/s)   Flow 1 egress (mean 56.80 Mbit/s)
Flow 2 ingress (mean 36.90 Mbit/s)   Flow 2 egress (mean 36.47 Mbit/s)
Flow 3 ingress (mean 44.02 Mbit/s)   Flow 3 egress (mean 43.87 Mbit/s)

Flow 1 (95th percentile 44.98 ms)   Flow 2 (95th percentile 62.89 ms)   Flow 3 (95th percentile 47.15 ms)
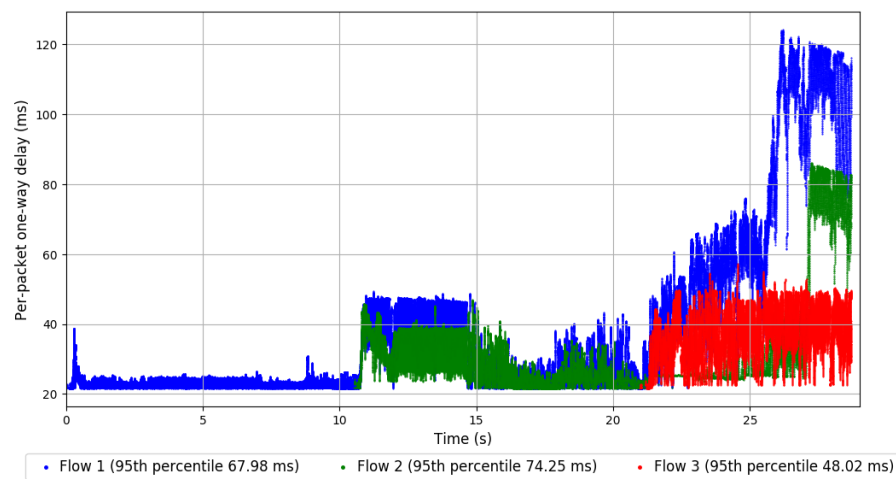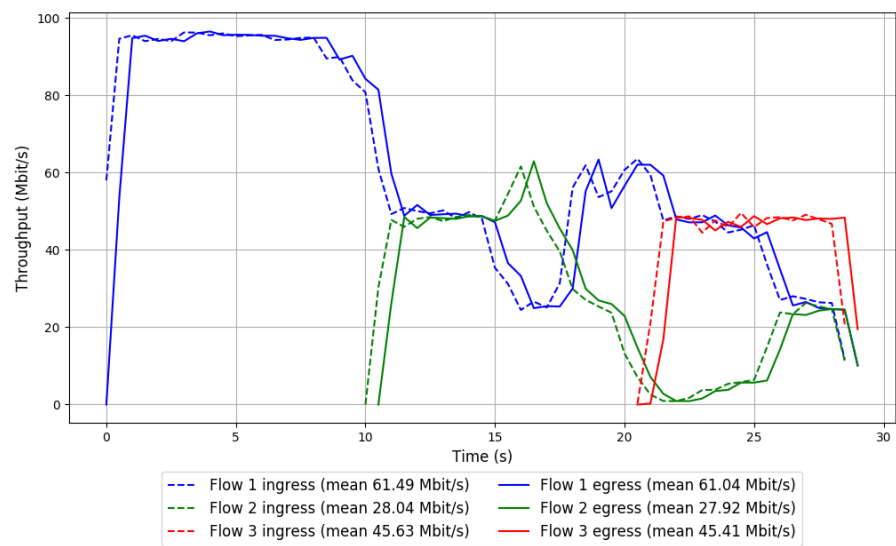
```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-07-12 16:57:09
End at: 2019-07-12 16:57:39
Local clock offset: 3.129 ms
Remote clock offset: -1.298 ms


# Below is generated by plot.py at 2019-07-12 18:34:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.19 Mbit/s
95th percentile per-packet one-way delay: 68.368 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 53.31 Mbit/s
95th percentile per-packet one-way delay: 46.658 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 45.65 Mbit/s
95th percentile per-packet one-way delay: 75.662 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 37.08 Mbit/s
95th percentile per-packet one-way delay: 70.311 ms
Loss rate: 2.73%
```

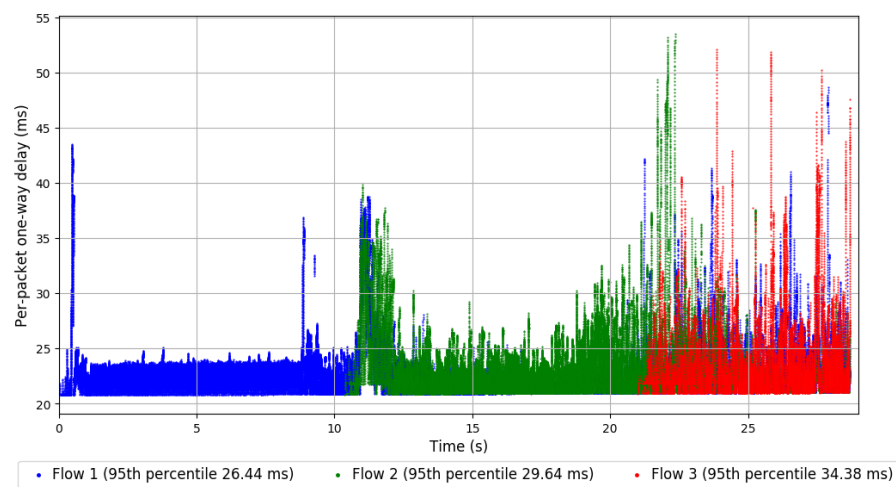Run 3: Report of Indigo-MusesC5 — Data Link

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-07-12 17:26:50
End at: 2019-07-12 17:27:20
Local clock offset: 2.342 ms
Remote clock offset: -3.207 ms


# Below is generated by plot.py at 2019-07-12 18:34:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.60 Mbit/s
95th percentile per-packet one-way delay: 85.403 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 57.05 Mbit/s
95th percentile per-packet one-way delay: 79.427 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 35.56 Mbit/s
95th percentile per-packet one-way delay: 92.517 ms
Loss rate: 2.80%
-- Flow 3:
Average throughput: 44.49 Mbit/s
95th percentile per-packet one-way delay: 48.369 ms
Loss rate: 0.89%
```

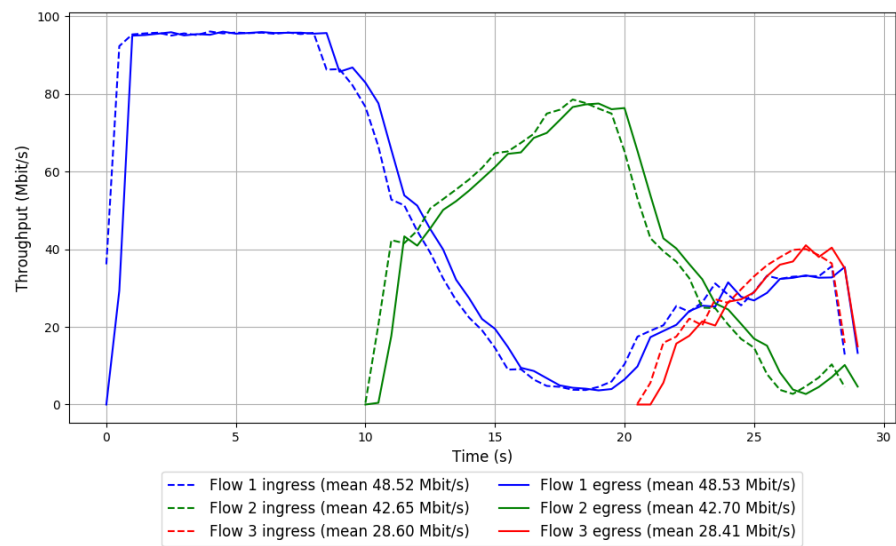Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-07-12 17:56:07
End at: 2019-07-12 17:56:37
Local clock offset: 3.024 ms
Remote clock offset: -4.802 ms


# Below is generated by plot.py at 2019-07-12 18:34:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.02 Mbit/s
95th percentile per-packet one-way delay: 66.178 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 61.04 Mbit/s
95th percentile per-packet one-way delay: 67.984 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 27.92 Mbit/s
95th percentile per-packet one-way delay: 74.249 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 45.41 Mbit/s
95th percentile per-packet one-way delay: 48.022 ms
Loss rate: 0.63%
```

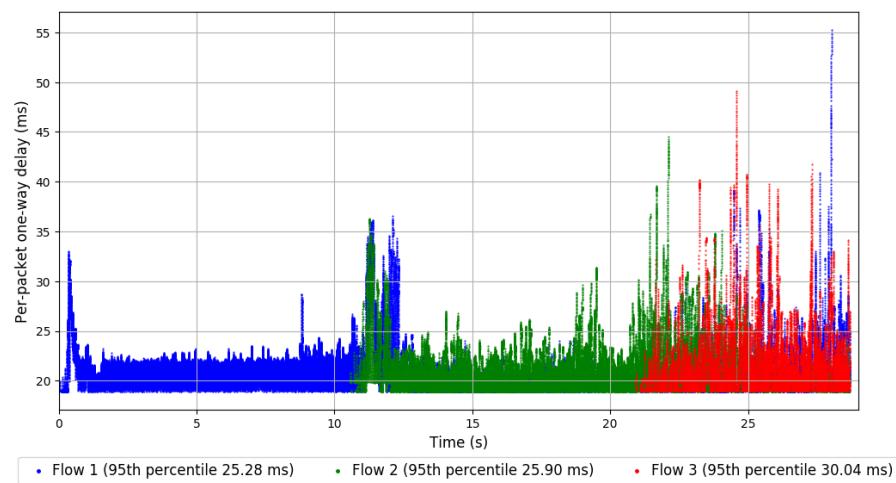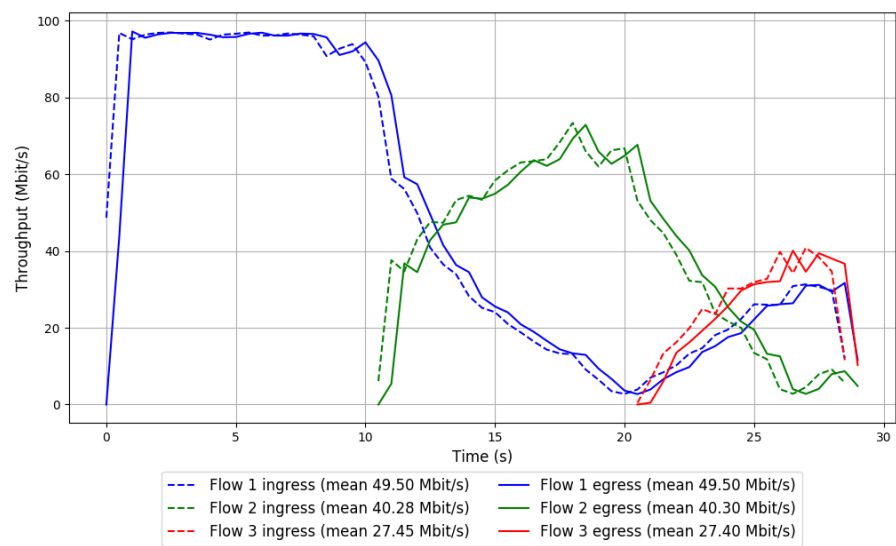Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 61.49 Mbit/s) Flow 1 egress (mean 61.04 Mbit/s)
Flow 2 ingress (mean 28.04 Mbit/s) Flow 2 egress (mean 27.92 Mbit/s)
Flow 3 ingress (mean 45.63 Mbit/s) Flow 3 egress (mean 45.41 Mbit/s)

Flow 1 (95th percentile 67.98 ms)   Flow 2 (95th percentile 74.25 ms)   Flow 3 (95th percentile 48.02 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-07-12 15:59:09
End at: 2019-07-12 15:59:39
Local clock offset: 8.053 ms
Remote clock offset: -1.323 ms


# Below is generated by plot.py at 2019-07-12 18:34:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.46 Mbit/s
95th percentile per-packet one-way delay: 28.853 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 48.53 Mbit/s
95th percentile per-packet one-way delay: 26.437 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 29.645 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 28.41 Mbit/s
95th percentile per-packet one-way delay: 34.376 ms
Loss rate: 0.79%
```

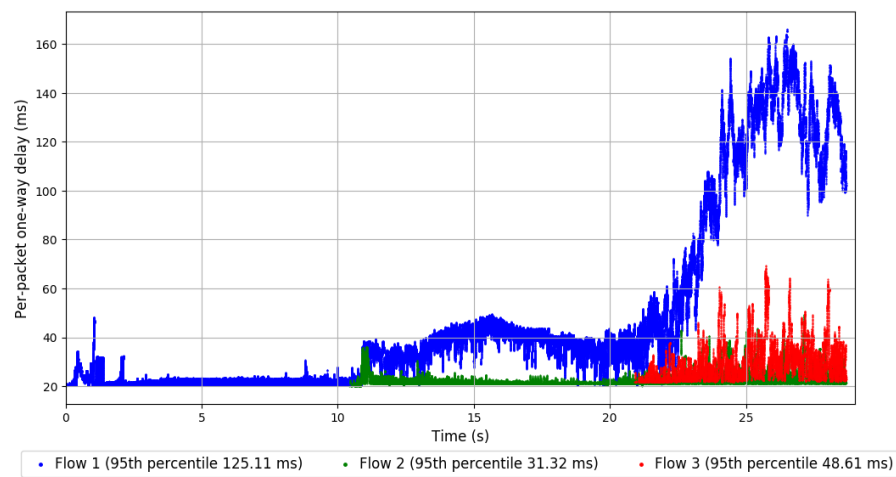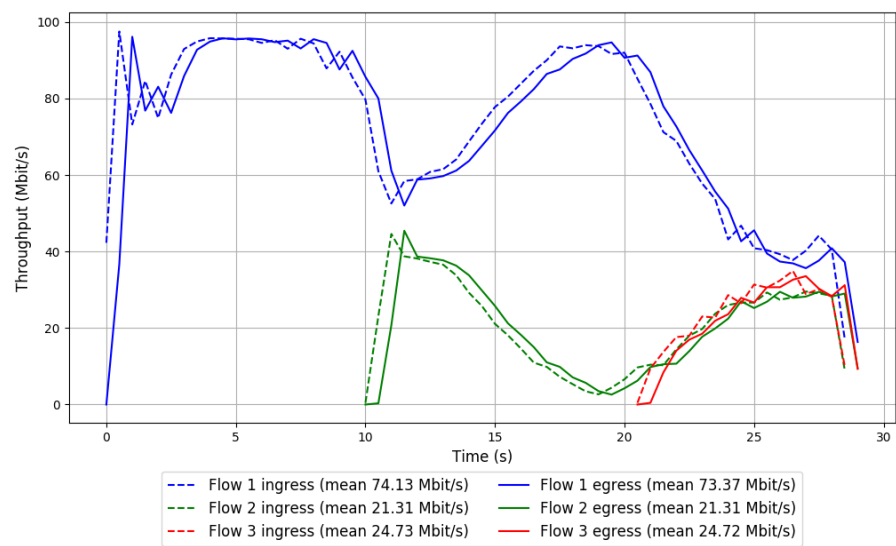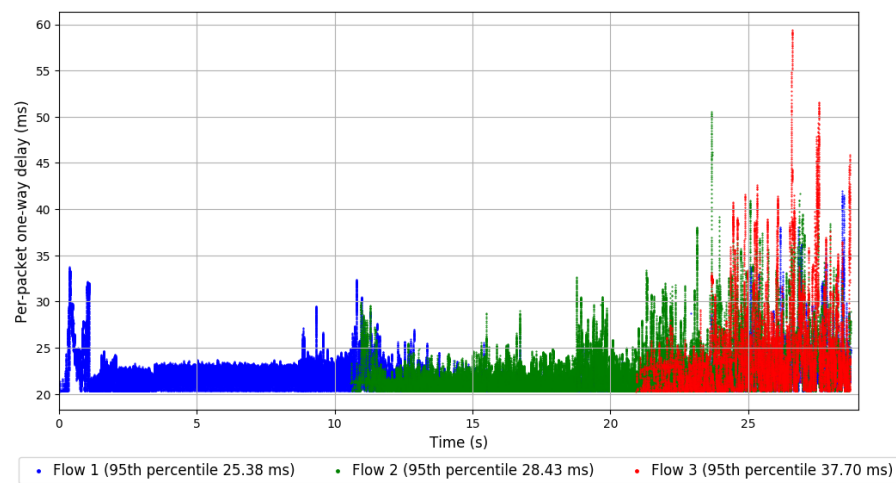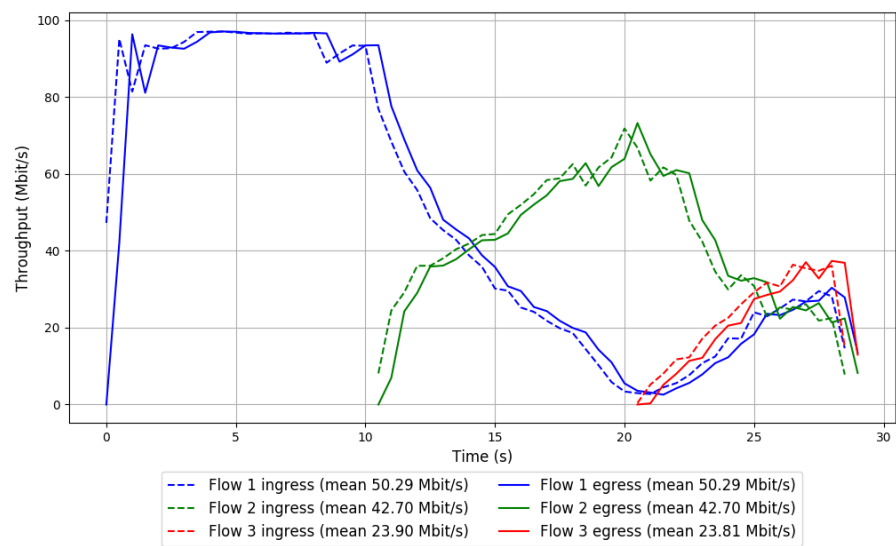Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-07-12 16:28:47
End at: 2019-07-12 16:29:17
Local clock offset: 2.336 ms
Remote clock offset: -0.685 ms


# Below is generated by plot.py at 2019-07-12 18:34:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.46 Mbit/s
95th percentile per-packet one-way delay: 26.145 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 49.50 Mbit/s
95th percentile per-packet one-way delay: 25.276 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 40.30 Mbit/s
95th percentile per-packet one-way delay: 25.900 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 27.40 Mbit/s
95th percentile per-packet one-way delay: 30.039 ms
Loss rate: 0.38%
```

Run 2: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 49.50 Mbit/s) --- Flow 1 egress (mean 49.50 Mbit/s) ---
Flow 2 ingress (mean 40.28 Mbit/s) --- Flow 2 egress (mean 40.30 Mbit/s) ---
Flow 3 ingress (mean 27.45 Mbit/s) --- Flow 3 egress (mean 27.40 Mbit/s) ---

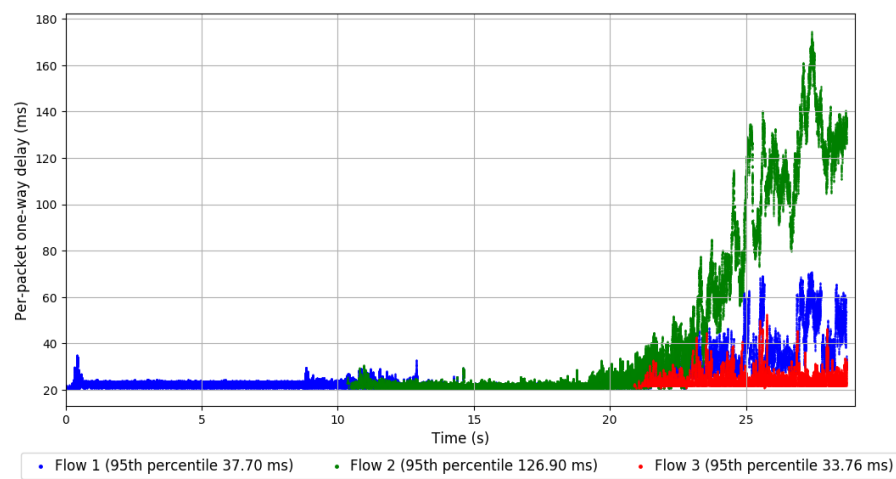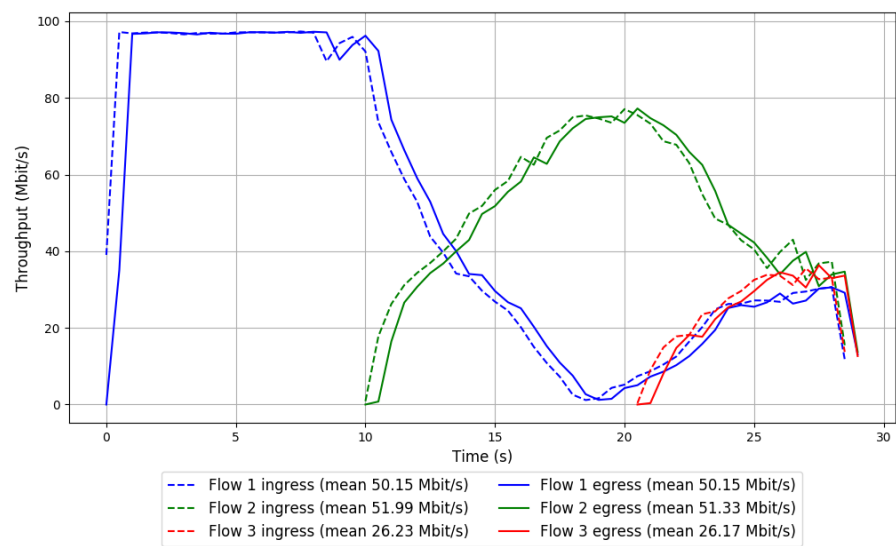Flow 1 (95th percentile 25.28 ms)   Flow 2 (95th percentile 25.90 ms)   Flow 3 (95th percentile 30.04 ms)

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-07-12 16:58:25
End at: 2019-07-12 16:58:55
Local clock offset: 3.611 ms
Remote clock offset: -1.232 ms


# Below is generated by plot.py at 2019-07-12 18:35:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.65 Mbit/s
95th percentile per-packet one-way delay: 117.403 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 73.37 Mbit/s
95th percentile per-packet one-way delay: 125.105 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 31.315 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 24.72 Mbit/s
95th percentile per-packet one-way delay: 48.611 ms
Loss rate: 0.37%
```

Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-07-12 17:28:02
End at: 2019-07-12 17:28:33
Local clock offset: 2.444 ms
Remote clock offset: -2.577 ms


# Below is generated by plot.py at 2019-07-12 18:35:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.76 Mbit/s
95th percentile per-packet one-way delay: 27.768 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 50.29 Mbit/s
95th percentile per-packet one-way delay: 25.376 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 28.427 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 23.81 Mbit/s
95th percentile per-packet one-way delay: 37.705 ms
Loss rate: 0.78%
```

Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-07-12 17:57:20
End at: 2019-07-12 17:57:50
Local clock offset: 2.61 ms
Remote clock offset: -4.218 ms


# Below is generated by plot.py at 2019-07-12 18:35:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.16 Mbit/s
95th percentile per-packet one-way delay: 88.509 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 50.15 Mbit/s
95th percentile per-packet one-way delay: 37.702 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 51.33 Mbit/s
95th percentile per-packet one-way delay: 126.899 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 26.17 Mbit/s
95th percentile per-packet one-way delay: 33.762 ms
Loss rate: 0.40%
```
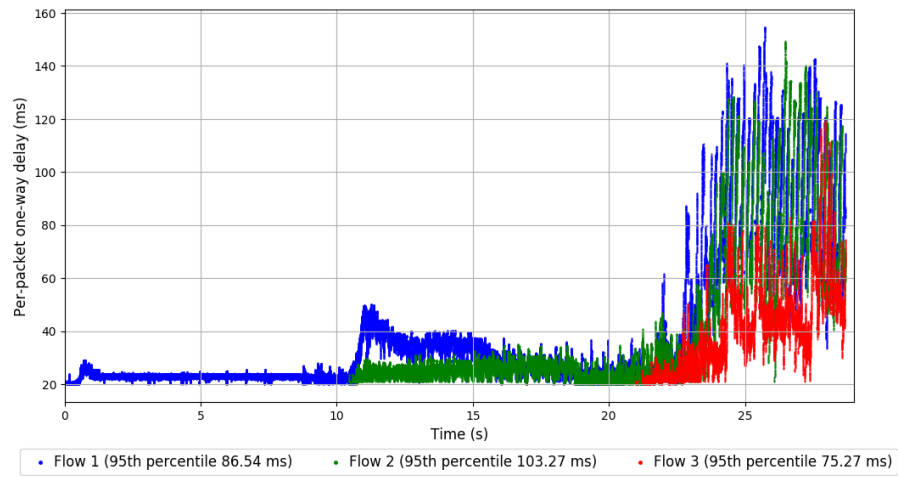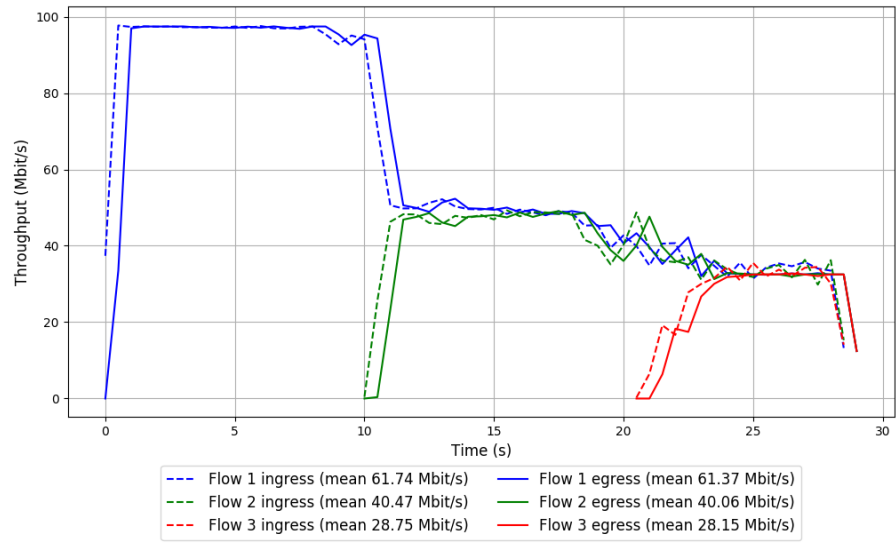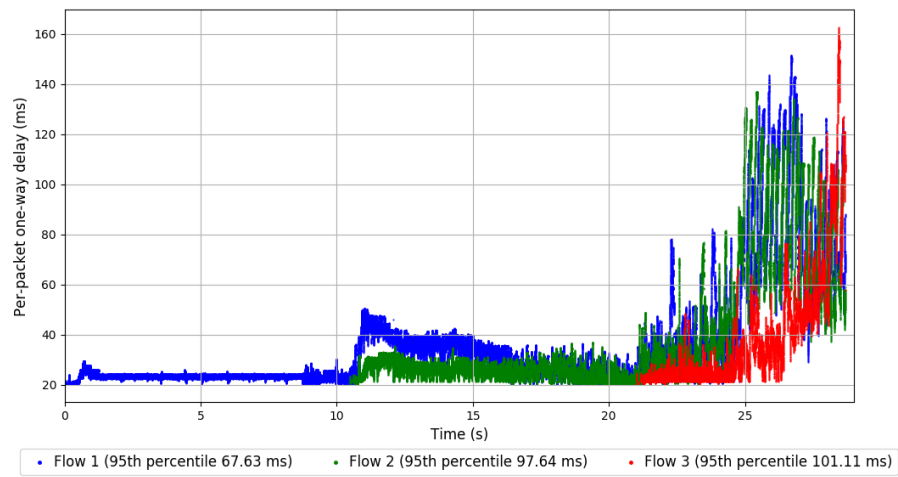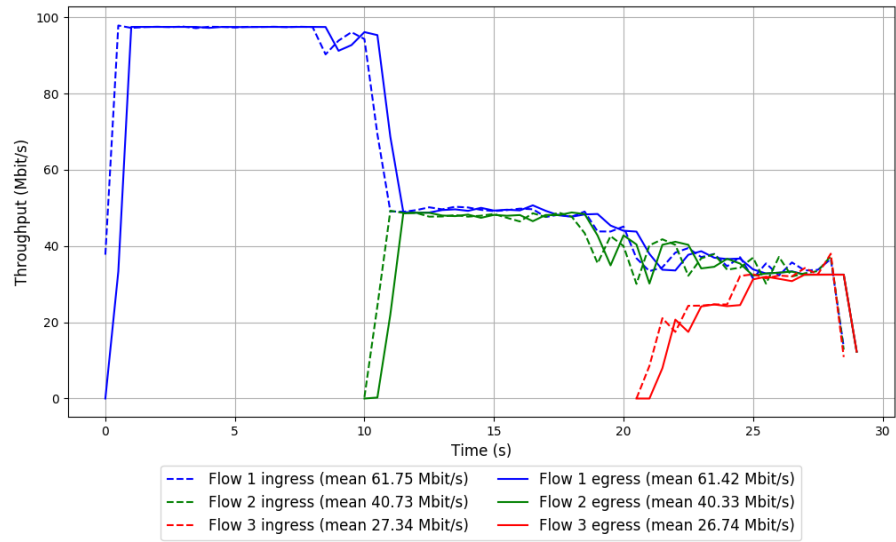
Run 5: Report of Indigo-MusesD — Data Link

- - - - Flow 1 ingress (mean 50.15 Mbit/s)   —— Flow 1 egress (mean 50.15 Mbit/s)
- - - - Flow 2 ingress (mean 51.99 Mbit/s)   —— Flow 2 egress (mean 51.33 Mbit/s)
- - - - Flow 3 ingress (mean 26.23 Mbit/s)   —— Flow 3 egress (mean 26.17 Mbit/s)

- Flow 1 (95th percentile 37.70 ms)   • Flow 2 (95th percentile 126.90 ms)   • Flow 3 (95th percentile 33.76 ms)
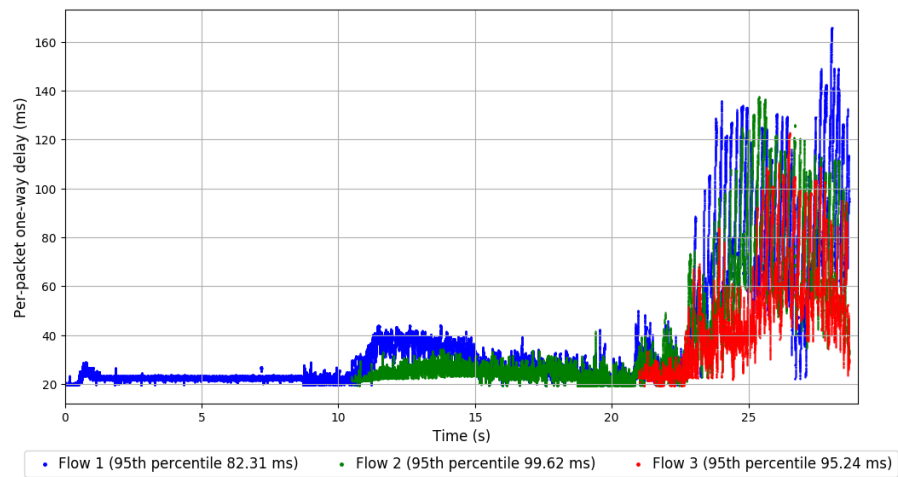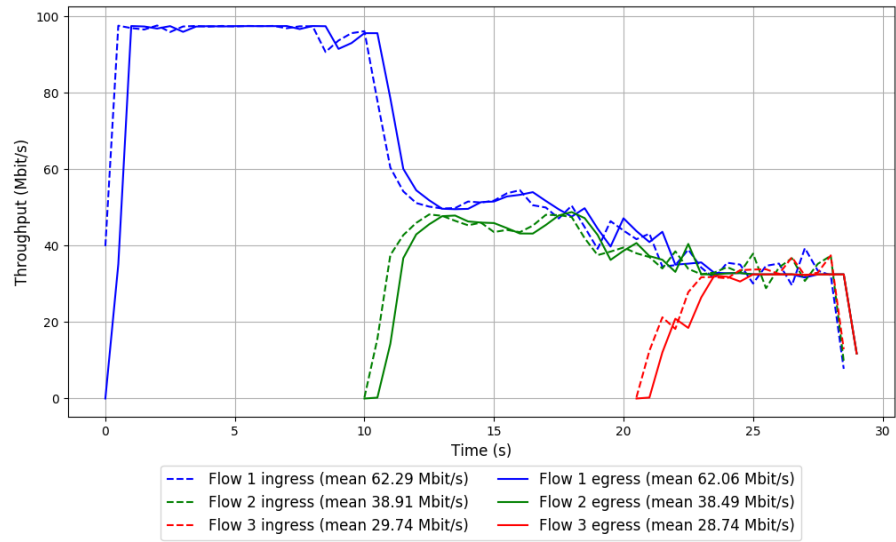
```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-07-12 16:20:21
End at: 2019-07-12 16:20:51
Local clock offset: 3.818 ms
Remote clock offset: -0.59 ms


# Below is generated by plot.py at 2019-07-12 18:35:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.47 Mbit/s
95th percentile per-packet one-way delay: 92.685 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 61.37 Mbit/s
95th percentile per-packet one-way delay: 86.536 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 40.06 Mbit/s
95th percentile per-packet one-way delay: 103.274 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 28.15 Mbit/s
95th percentile per-packet one-way delay: 75.269 ms
Loss rate: 1.95%
```

Run 1: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 61.74 Mbit/s)   Flow 1 egress (mean 61.37 Mbit/s)
Flow 2 ingress (mean 40.47 Mbit/s)   Flow 2 egress (mean 40.06 Mbit/s)
Flow 3 ingress (mean 28.75 Mbit/s)   Flow 3 egress (mean 28.15 Mbit/s)

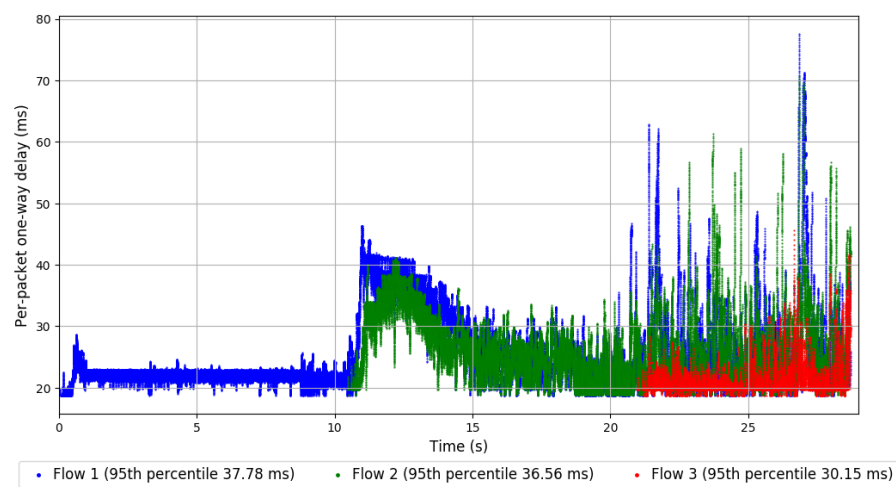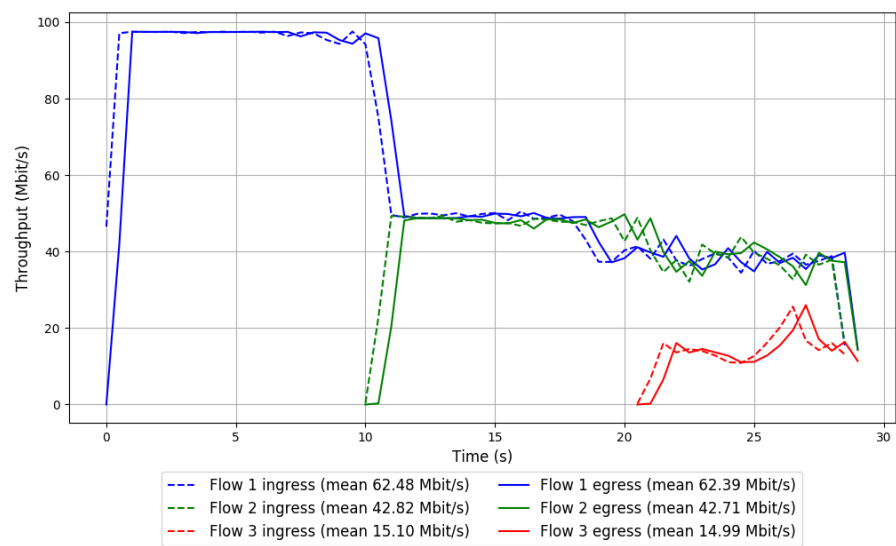Flow 1 (95th percentile 86.54 ms)   Flow 2 (95th percentile 103.27 ms)   Flow 3 (95th percentile 75.27 ms)

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-07-12 16:49:56
End at: 2019-07-12 16:50:26
Local clock offset: 2.984 ms
Remote clock offset: -1.898 ms


# Below is generated by plot.py at 2019-07-12 18:35:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.24 Mbit/s
95th percentile per-packet one-way delay: 81.305 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 61.42 Mbit/s
95th percentile per-packet one-way delay: 67.633 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 40.33 Mbit/s
95th percentile per-packet one-way delay: 97.638 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 26.74 Mbit/s
95th percentile per-packet one-way delay: 101.112 ms
Loss rate: 2.38%
```
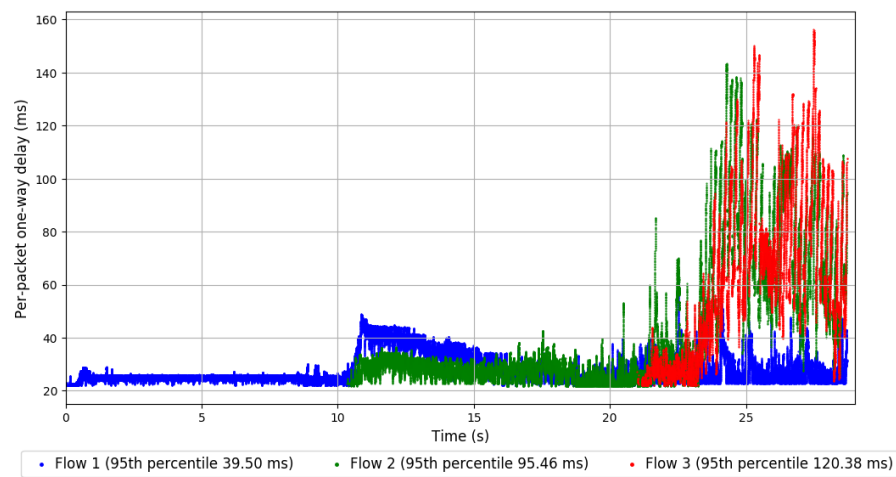
Run 2: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 61.75 Mbit/s)   Flow 1 egress (mean 61.42 Mbit/s)
Flow 2 ingress (mean 40.73 Mbit/s)   Flow 2 egress (mean 40.33 Mbit/s)
Flow 3 ingress (mean 27.34 Mbit/s)   Flow 3 egress (mean 26.74 Mbit/s)

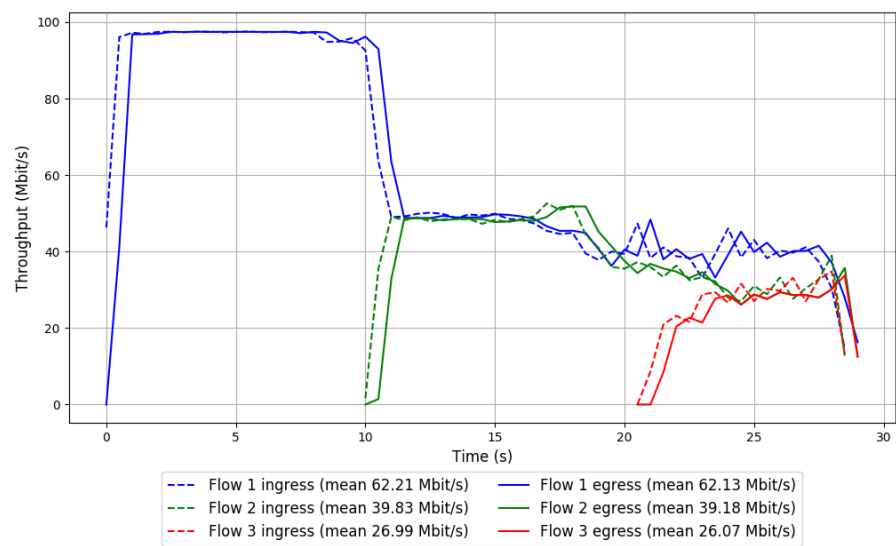Flow 1 (95th percentile 67.63 ms)   Flow 2 (95th percentile 97.64 ms)   Flow 3 (95th percentile 101.11 ms)

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-07-12 17:19:41
End at: 2019-07-12 17:20:11
Local clock offset: 2.569 ms
Remote clock offset: -1.444 ms


# Below is generated by plot.py at 2019-07-12 18:35:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.27 Mbit/s
95th percentile per-packet one-way delay: 91.412 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 62.06 Mbit/s
95th percentile per-packet one-way delay: 82.309 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 38.49 Mbit/s
95th percentile per-packet one-way delay: 99.617 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 28.74 Mbit/s
95th percentile per-packet one-way delay: 95.236 ms
Loss rate: 3.71%
```

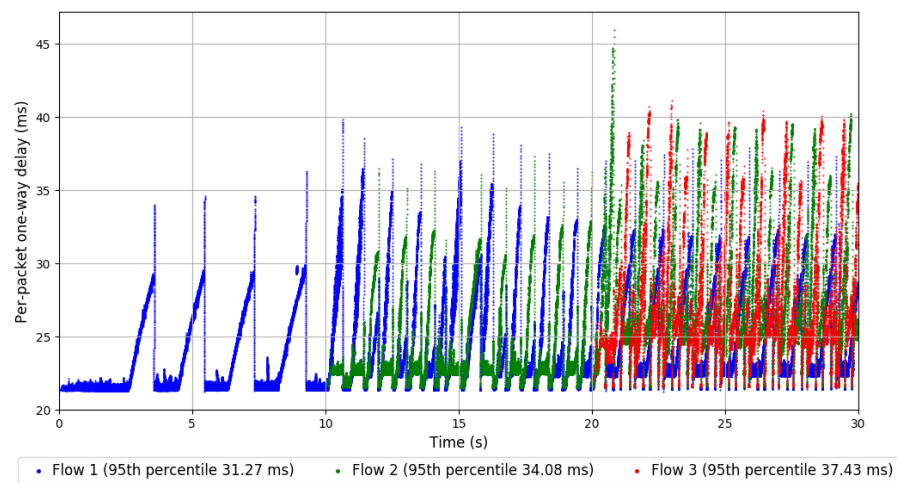Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-07-12 17:48:57
End at: 2019-07-12 17:49:27
Local clock offset: 3.078 ms
Remote clock offset: -1.534 ms


# Below is generated by plot.py at 2019-07-12 18:36:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.62 Mbit/s
95th percentile per-packet one-way delay: 37.215 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 62.39 Mbit/s
95th percentile per-packet one-way delay: 37.780 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 42.71 Mbit/s
95th percentile per-packet one-way delay: 36.561 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 14.99 Mbit/s
95th percentile per-packet one-way delay: 30.149 ms
Loss rate: 1.08%
```

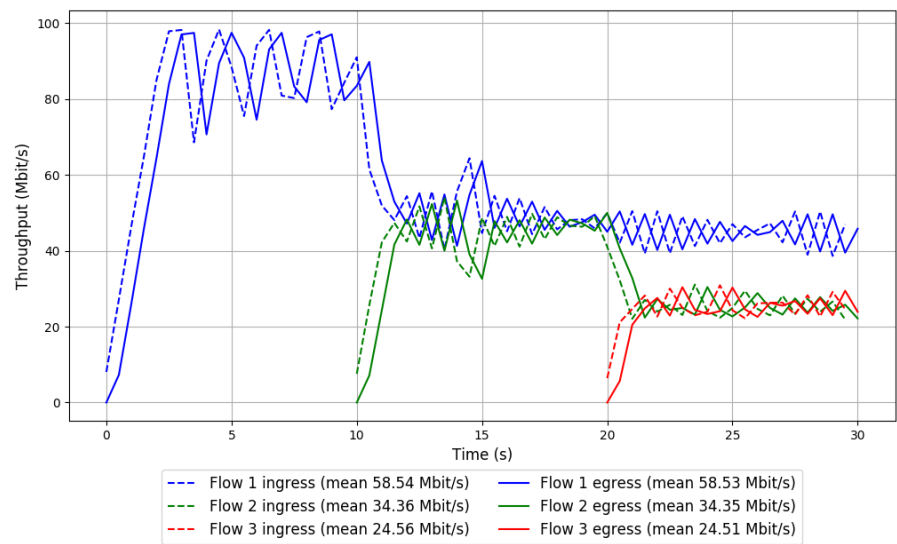Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-07-12 18:18:23
End at: 2019-07-12 18:18:53
Local clock offset: 8.432 ms
Remote clock offset: -5.097 ms


# Below is generated by plot.py at 2019-07-12 18:36:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.25 Mbit/s
95th percentile per-packet one-way delay: 75.379 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 62.13 Mbit/s
95th percentile per-packet one-way delay: 39.500 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 39.18 Mbit/s
95th percentile per-packet one-way delay: 95.457 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 26.07 Mbit/s
95th percentile per-packet one-way delay: 120.383 ms
Loss rate: 3.78%
```

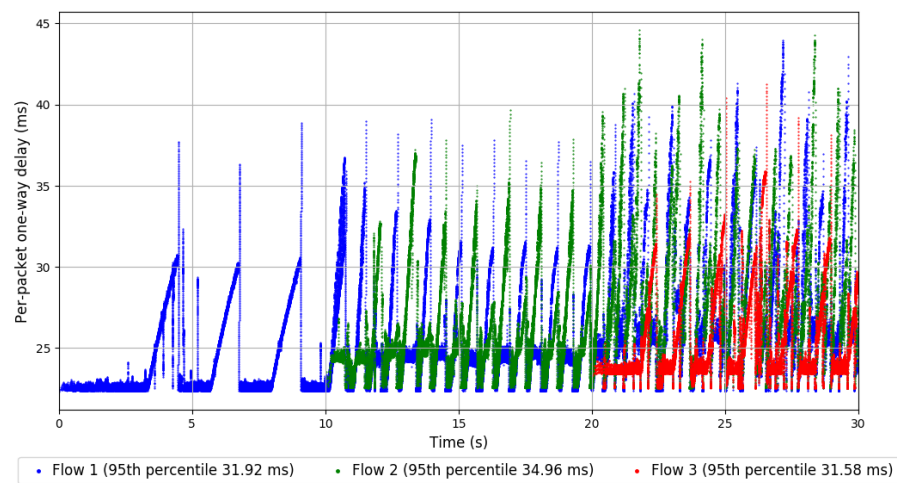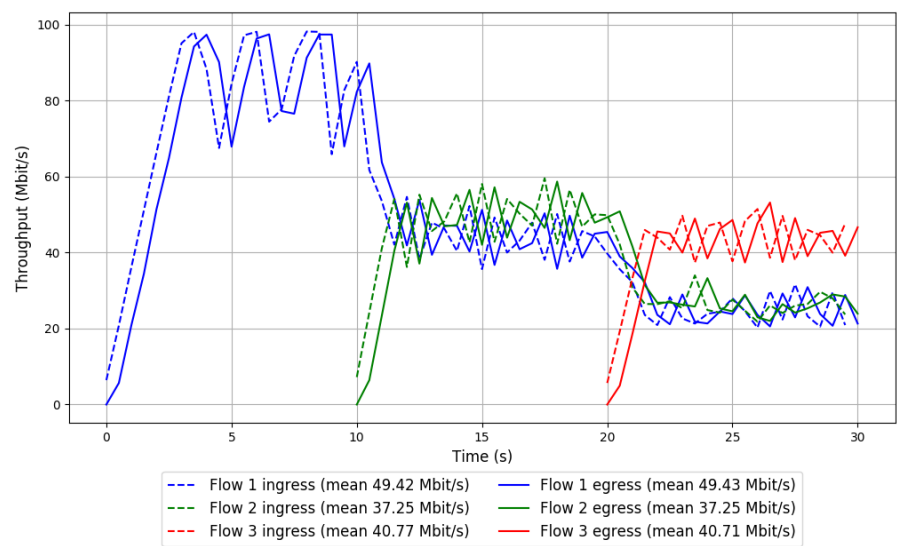Run 5: Report of Indigo-MusesT — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2019-07-12 16:07:47
End at: 2019-07-12 16:08:17
Local clock offset: 5.071 ms
Remote clock offset: -2.045 ms

# Below is generated by plot.py at 2019-07-12 18:36:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.54 Mbit/s
95th percentile per-packet one-way delay: 32.284 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 58.53 Mbit/s
95th percentile per-packet one-way delay: 31.270 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 34.35 Mbit/s
95th percentile per-packet one-way delay: 34.078 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 37.430 ms
Loss rate: 0.45%
```
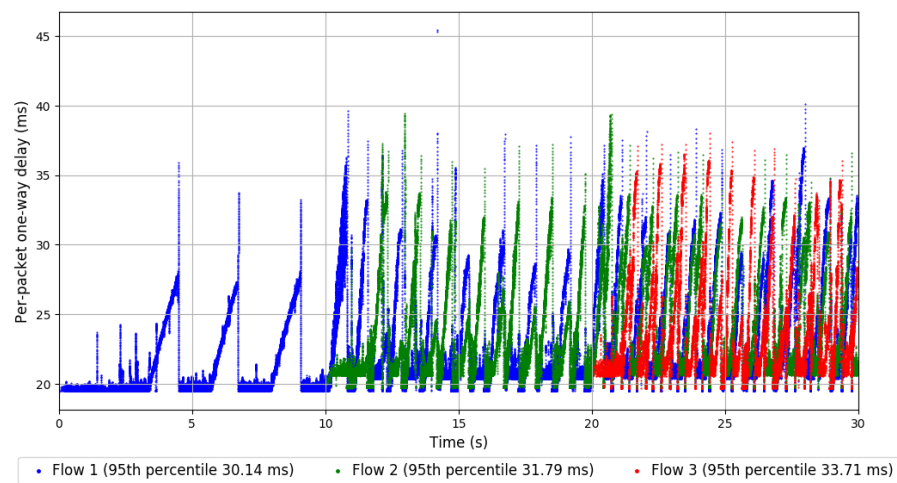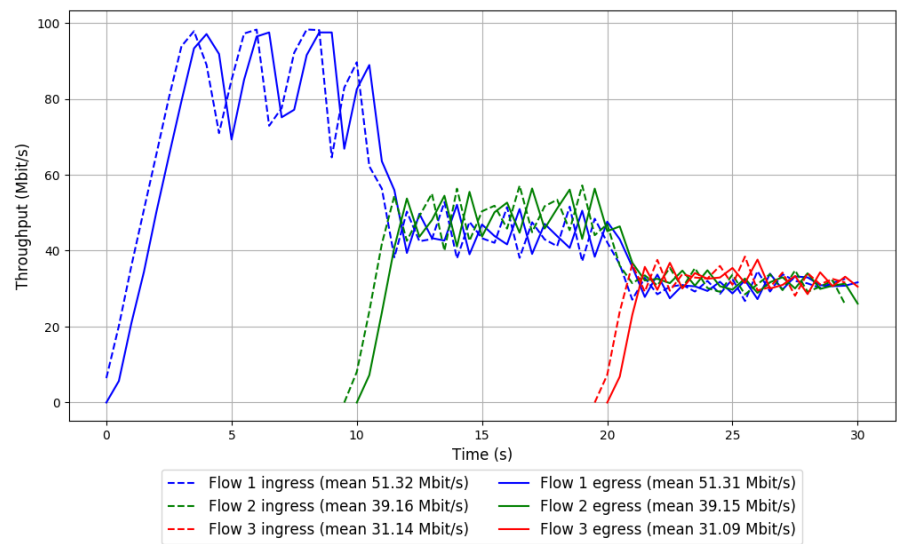
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 58.54 Mbit/s)   Flow 1 egress (mean 58.53 Mbit/s)
Flow 2 ingress (mean 34.36 Mbit/s)   Flow 2 egress (mean 34.35 Mbit/s)
Flow 3 ingress (mean 24.56 Mbit/s)   Flow 3 egress (mean 24.51 Mbit/s)

Flow 1 (95th percentile 31.27 ms)   Flow 2 (95th percentile 34.08 ms)   Flow 3 (95th percentile 37.43 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-07-12 16:37:21
End at: 2019-07-12 16:37:51
Local clock offset: 4.178 ms
Remote clock offset: -2.596 ms


# Below is generated by plot.py at 2019-07-12 18:36:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.75 Mbit/s
95th percentile per-packet one-way delay: 32.959 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 49.43 Mbit/s
95th percentile per-packet one-way delay: 31.922 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 37.25 Mbit/s
95th percentile per-packet one-way delay: 34.959 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 40.71 Mbit/s
95th percentile per-packet one-way delay: 31.583 ms
Loss rate: 0.41%
```
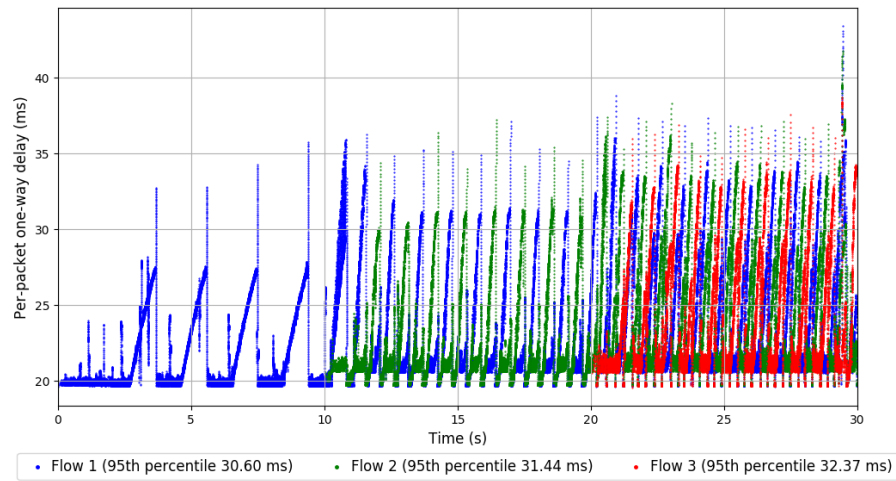
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-07-12 17:07:08
End at: 2019-07-12 17:07:38
Local clock offset: 2.594 ms
Remote clock offset: -1.332 ms


# Below is generated by plot.py at 2019-07-12 18:36:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.72 Mbit/s
95th percentile per-packet one-way delay: 31.203 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 51.31 Mbit/s
95th percentile per-packet one-way delay: 30.143 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.15 Mbit/s
95th percentile per-packet one-way delay: 31.794 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.09 Mbit/s
95th percentile per-packet one-way delay: 33.710 ms
Loss rate: 0.41%
```
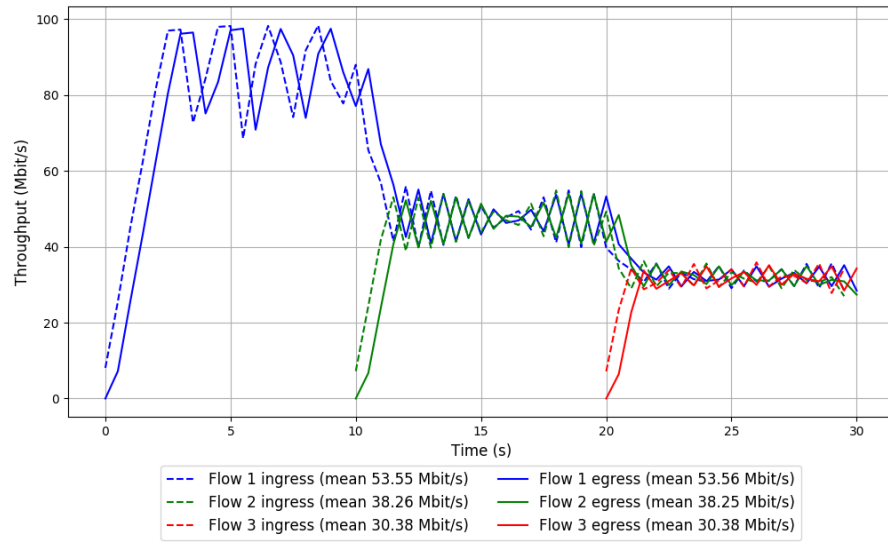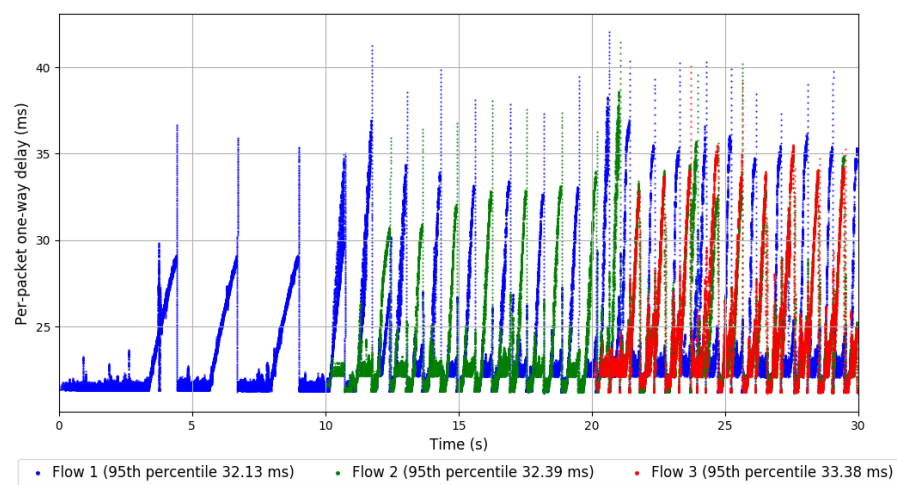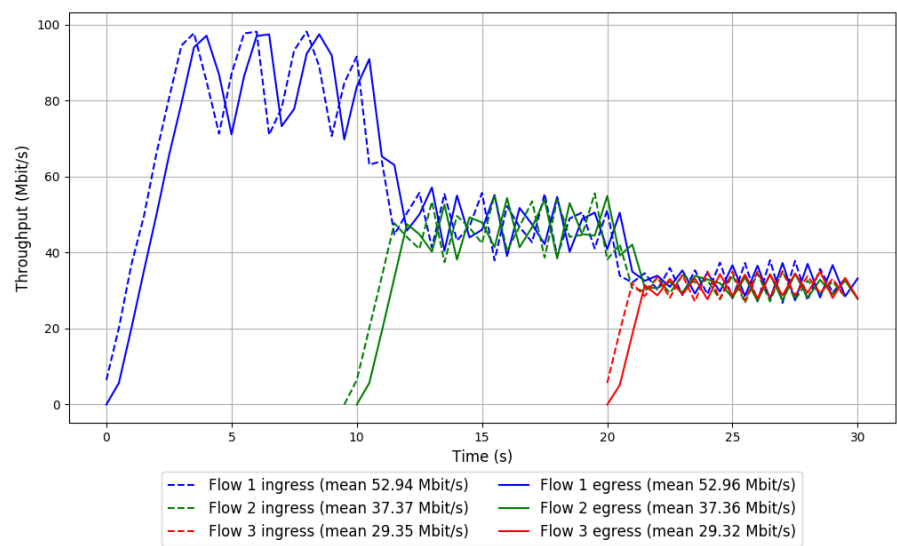
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 51.32 Mbit/s)   Flow 1 egress (mean 51.31 Mbit/s)
Flow 2 ingress (mean 39.16 Mbit/s)   Flow 2 egress (mean 39.15 Mbit/s)
Flow 3 ingress (mean 31.14 Mbit/s)   Flow 3 egress (mean 31.09 Mbit/s)

Flow 1 (95th percentile 30.14 ms)   Flow 2 (95th percentile 31.79 ms)   Flow 3 (95th percentile 33.71 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-07-12 17:36:34
End at: 2019-07-12 17:37:04
Local clock offset: 2.244 ms
Remote clock offset: -2.71 ms


# Below is generated by plot.py at 2019-07-12 18:36:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.09 Mbit/s
95th percentile per-packet one-way delay: 31.085 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 53.56 Mbit/s
95th percentile per-packet one-way delay: 30.598 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 38.25 Mbit/s
95th percentile per-packet one-way delay: 31.444 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 30.38 Mbit/s
95th percentile per-packet one-way delay: 32.373 ms
Loss rate: 0.26%
```
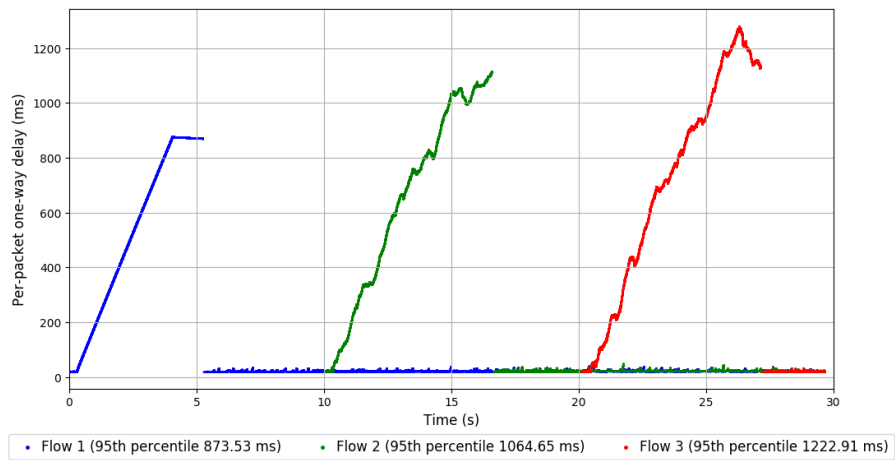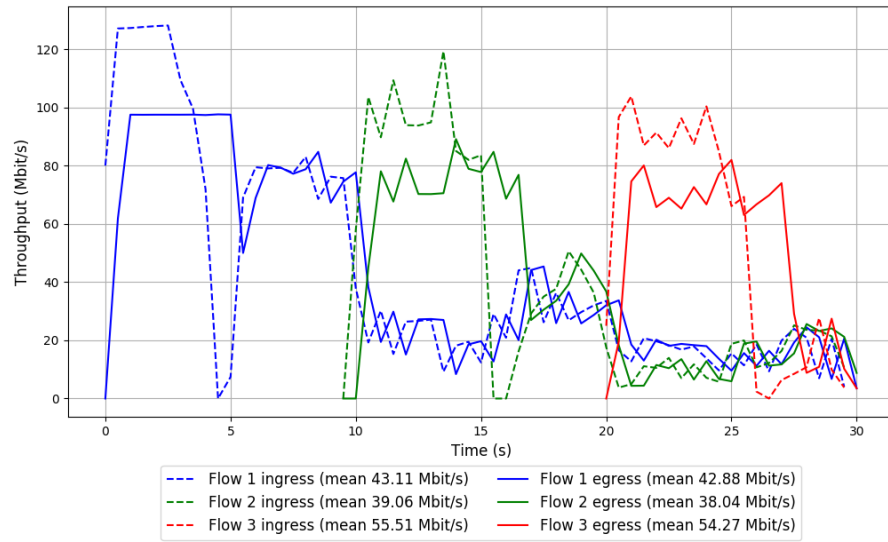
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-07-12 18:05:51
End at: 2019-07-12 18:06:21
Local clock offset: 5.947 ms
Remote clock offset: -4.784 ms


# Below is generated by plot.py at 2019-07-12 18:37:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.55 Mbit/s
95th percentile per-packet one-way delay: 32.451 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 52.96 Mbit/s
95th percentile per-packet one-way delay: 32.131 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 37.36 Mbit/s
95th percentile per-packet one-way delay: 32.393 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 29.32 Mbit/s
95th percentile per-packet one-way delay: 33.379 ms
Loss rate: 0.37%
```

Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 52.94 Mbit/s)   Flow 1 egress (mean 52.96 Mbit/s)
Flow 2 ingress (mean 37.37 Mbit/s)   Flow 2 egress (mean 37.36 Mbit/s)
Flow 3 ingress (mean 29.35 Mbit/s)   Flow 3 egress (mean 29.32 Mbit/s)

Flow 1 (95th percentile 32.13 ms)   Flow 2 (95th percentile 32.39 ms)   Flow 3 (95th percentile 33.38 ms)

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 16:09:01
End at: 2019-07-12 16:09:31
Local clock offset: 5.035 ms
Remote clock offset: -0.954 ms


# Below is generated by plot.py at 2019-07-12 18:37:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.59 Mbit/s
95th percentile per-packet one-way delay: 1100.489 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 42.88 Mbit/s
95th percentile per-packet one-way delay: 873.532 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 38.04 Mbit/s
95th percentile per-packet one-way delay: 1064.647 ms
Loss rate: 2.77%
-- Flow 3:
Average throughput: 54.27 Mbit/s
95th percentile per-packet one-way delay: 1222.912 ms
Loss rate: 2.56%
```
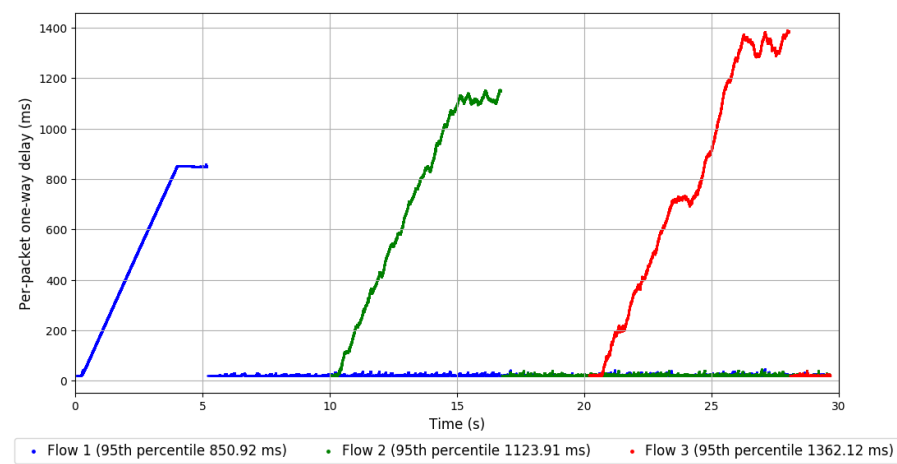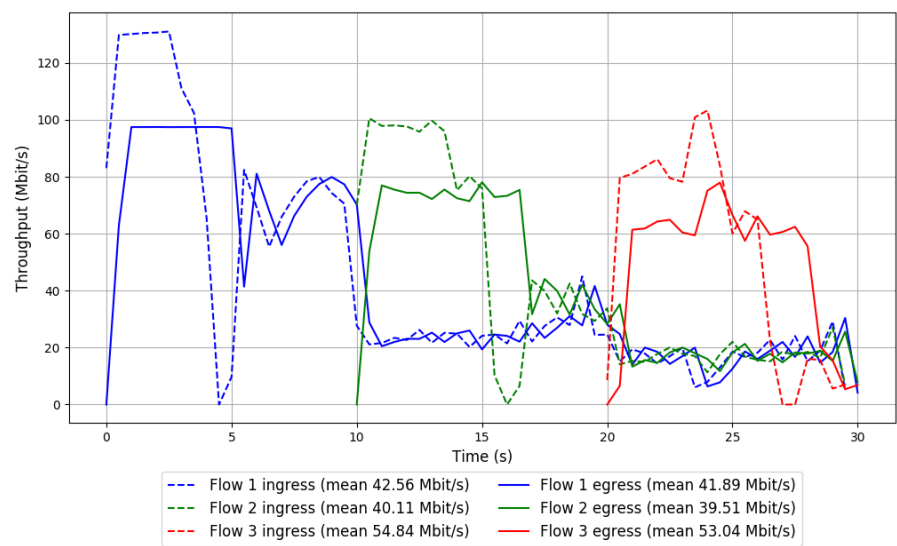
Run 1: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 43.11 Mbit/s) Flow 1 egress (mean 42.88 Mbit/s)
Flow 2 ingress (mean 39.06 Mbit/s) Flow 2 egress (mean 38.04 Mbit/s)
Flow 3 ingress (mean 55.51 Mbit/s) Flow 3 egress (mean 54.27 Mbit/s)

Flow 1 (95th percentile 873.53 ms) Flow 2 (95th percentile 1064.65 ms) Flow 3 (95th percentile 1222.91 ms)
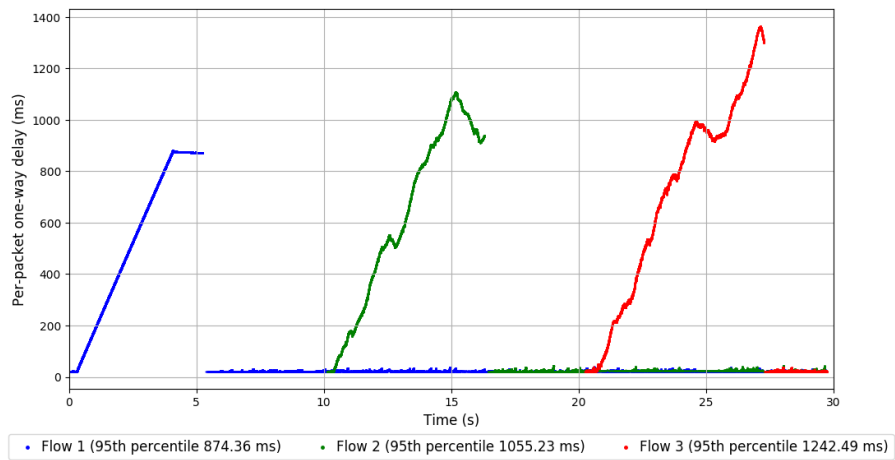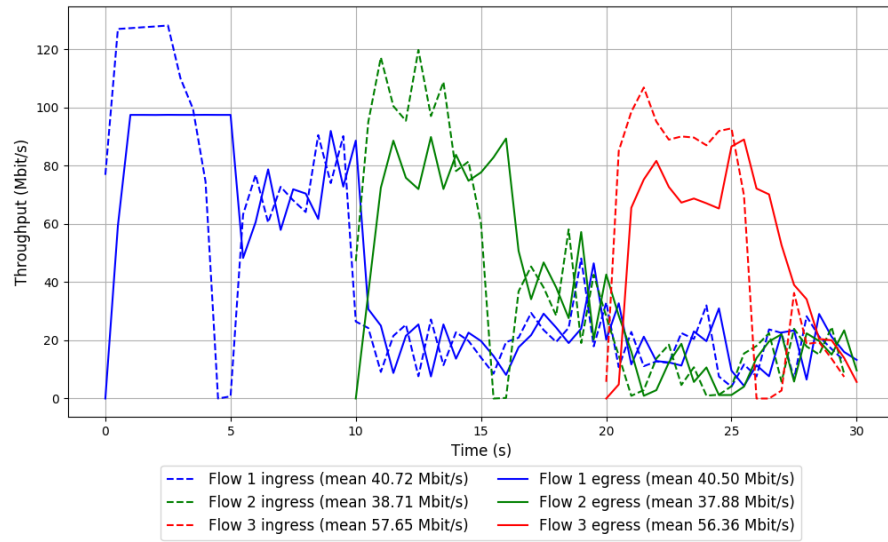
```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 16:38:34
End at: 2019-07-12 16:39:04
Local clock offset: 4.148 ms
Remote clock offset: -2.249 ms


# Below is generated by plot.py at 2019-07-12 18:37:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.87 Mbit/s
95th percentile per-packet one-way delay: 1068.504 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 36.55 Mbit/s
95th percentile per-packet one-way delay: 875.431 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 42.20 Mbit/s
95th percentile per-packet one-way delay: 885.458 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 57.43 Mbit/s
95th percentile per-packet one-way delay: 1116.270 ms
Loss rate: 2.54%
```

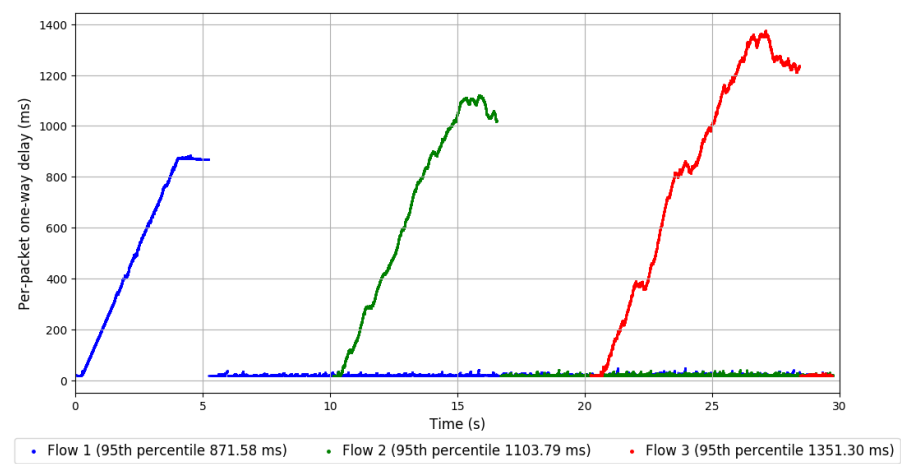Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 17:08:26
End at: 2019-07-12 17:08:56
Local clock offset: 2.452 ms
Remote clock offset: -3.14 ms


# Below is generated by plot.py at 2019-07-12 18:37:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.07 Mbit/s
95th percentile per-packet one-way delay: 1274.960 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 41.89 Mbit/s
95th percentile per-packet one-way delay: 850.918 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 1123.914 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 53.04 Mbit/s
95th percentile per-packet one-way delay: 1362.116 ms
Loss rate: 3.43%
```

Run 3: Report of Muses_DecisionTree — Data Link
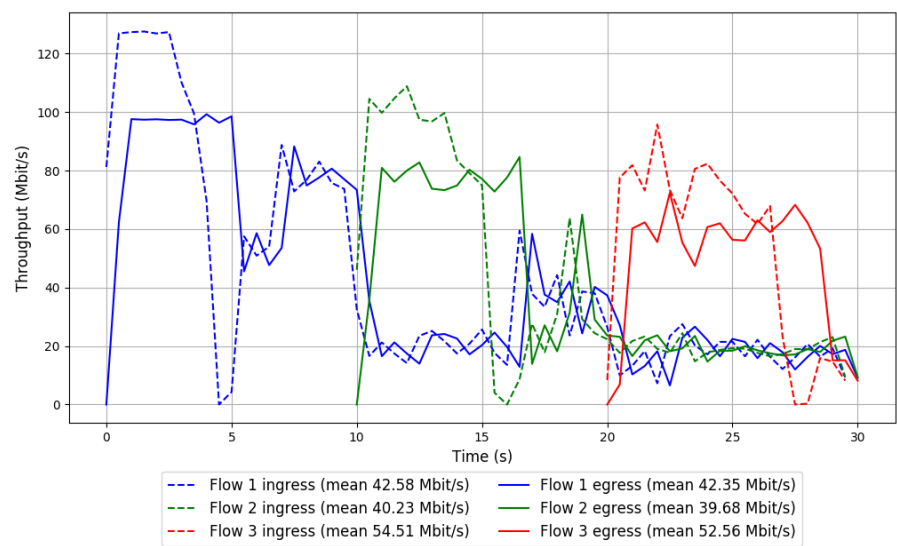
```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 17:37:50
End at: 2019-07-12 17:38:20
Local clock offset: 3.087 ms
Remote clock offset: -3.677 ms


# Below is generated by plot.py at 2019-07-12 18:37:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.56 Mbit/s
95th percentile per-packet one-way delay: 1038.038 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 40.50 Mbit/s
95th percentile per-packet one-way delay: 874.355 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 37.88 Mbit/s
95th percentile per-packet one-way delay: 1055.228 ms
Loss rate: 2.29%
-- Flow 3:
Average throughput: 56.36 Mbit/s
95th percentile per-packet one-way delay: 1242.495 ms
Loss rate: 2.50%
```
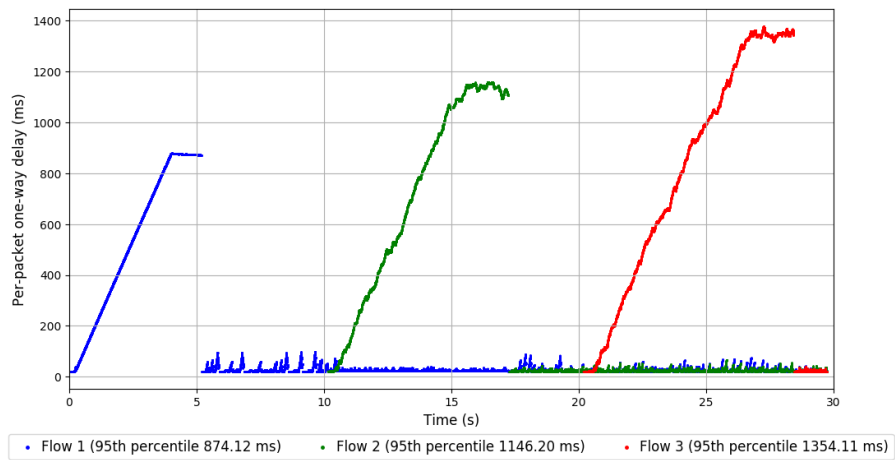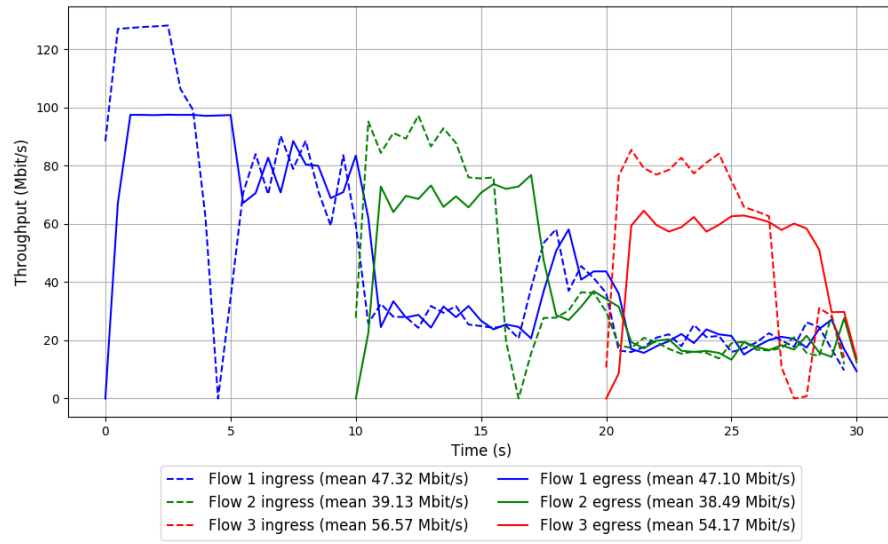
Run 4: Report of Muses_DecisionTree — Data Link

Run 5: Statistics of Muses_DecisionTree

Start at: 2019-07-12 18:07:05
End at: 2019-07-12 18:07:35
Local clock offset: 6.221 ms
Remote clock offset: -2.333 ms

Below is generated by plot.py at 2019-07-12 18:37:47
Datalink statistics
-- Total of 3 flows:
Average throughput: 85.42 Mbit/s
95th percentile per-packet one-way delay: 1242.092 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 42.35 Mbit/s
95th percentile per-packet one-way delay: 871.578 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 1103.789 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 52.56 Mbit/s
95th percentile per-packet one-way delay: 1351.302 ms
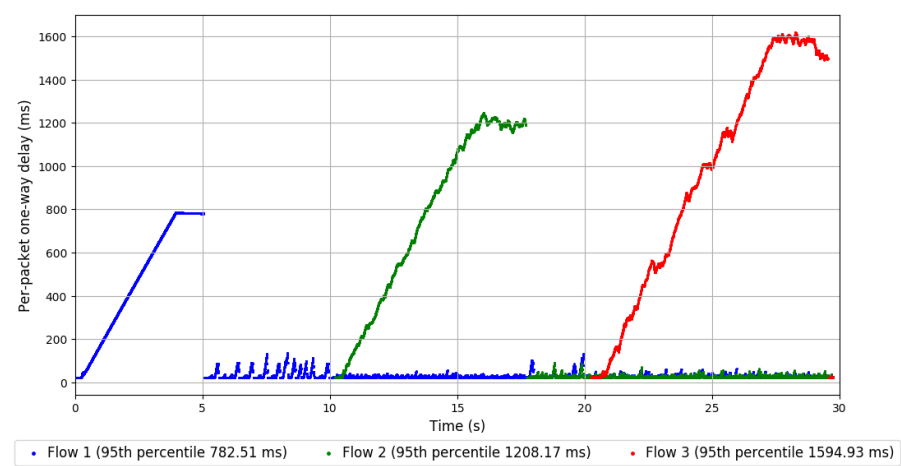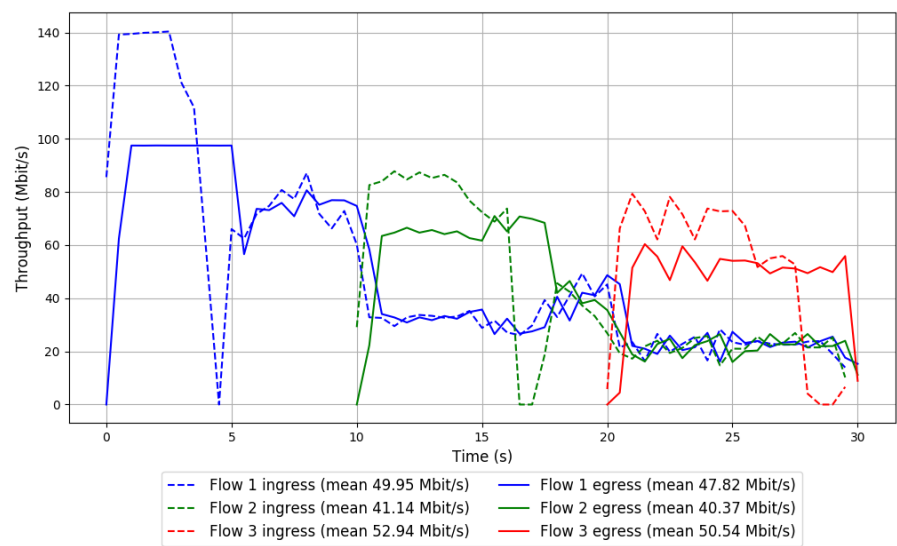Loss rate: 3.89%

Run 5: Report of Muses_DecisionTree — Data Link

- Flow 1 ingress (mean 42.58 Mbit/s) — Flow 1 egress (mean 42.35 Mbit/s)
- Flow 2 ingress (mean 40.23 Mbit/s) — Flow 2 egress (mean 39.68 Mbit/s)
- Flow 3 ingress (mean 54.51 Mbit/s) — Flow 3 egress (mean 52.56 Mbit/s)

- Flow 1 (95th percentile 871.58 ms) • Flow 2 (95th percentile 1103.79 ms) • Flow 3 (95th percentile 1351.30 ms)

```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 16:15:33
End at: 2019-07-12 16:16:03
Local clock offset: 4.191 ms
Remote clock offset: -0.989 ms


# Below is generated by plot.py at 2019-07-12 18:37:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.93 Mbit/s
95th percentile per-packet one-way delay: 1230.496 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 47.10 Mbit/s
95th percentile per-packet one-way delay: 874.116 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 38.49 Mbit/s
95th percentile per-packet one-way delay: 1146.205 ms
Loss rate: 1.78%
-- Flow 3:
Average throughput: 54.17 Mbit/s
95th percentile per-packet one-way delay: 1354.107 ms
Loss rate: 4.49%
```

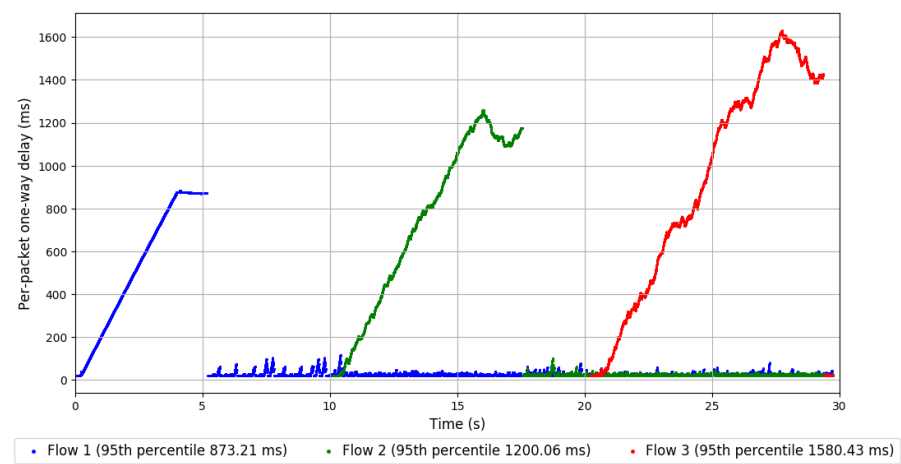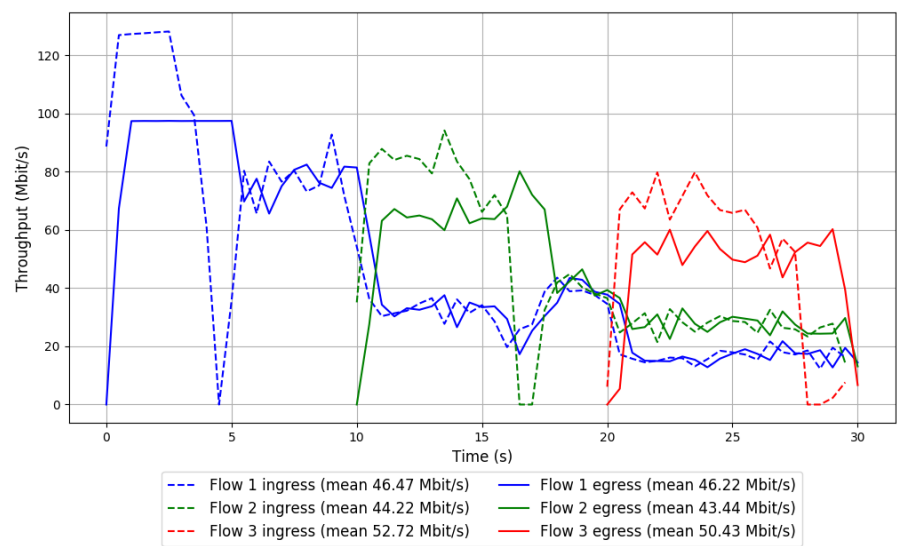Run 1: Report of Muses_DecisionTreeH0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 16:45:06
End at: 2019-07-12 16:45:36
Local clock offset: 3.933 ms
Remote clock offset: -3.119 ms


# Below is generated by plot.py at 2019-07-12 18:38:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.59 Mbit/s
95th percentile per-packet one-way delay: 1455.076 ms
Loss rate: 3.76%
-- Flow 1:
Average throughput: 47.82 Mbit/s
95th percentile per-packet one-way delay: 782.514 ms
Loss rate: 4.36%
-- Flow 2:
Average throughput: 40.37 Mbit/s
95th percentile per-packet one-way delay: 1208.173 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 50.54 Mbit/s
95th percentile per-packet one-way delay: 1594.933 ms
Loss rate: 4.78%
```
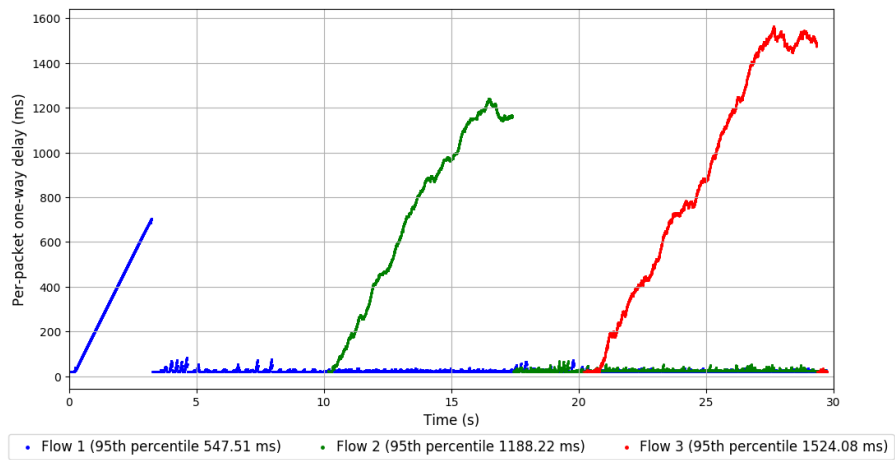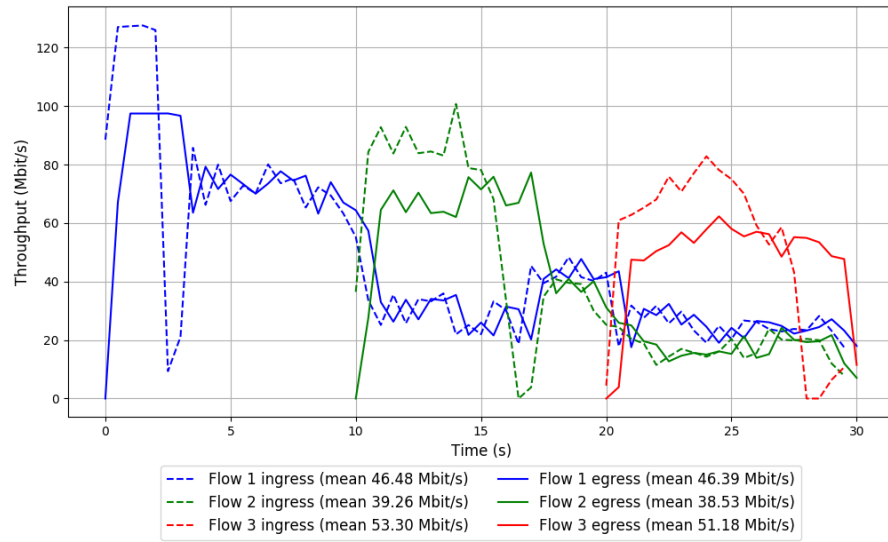
Run 2: Report of Muses_DecisionTreeH0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 17:14:54
End at: 2019-07-12 17:15:24
Local clock offset: 1.982 ms
Remote clock offset: -3.058 ms


# Below is generated by plot.py at 2019-07-12 18:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.10 Mbit/s
95th percentile per-packet one-way delay: 1391.527 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 46.22 Mbit/s
95th percentile per-packet one-way delay: 873.210 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 43.44 Mbit/s
95th percentile per-packet one-way delay: 1200.056 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 50.43 Mbit/s
95th percentile per-packet one-way delay: 1580.432 ms
Loss rate: 4.59%
```
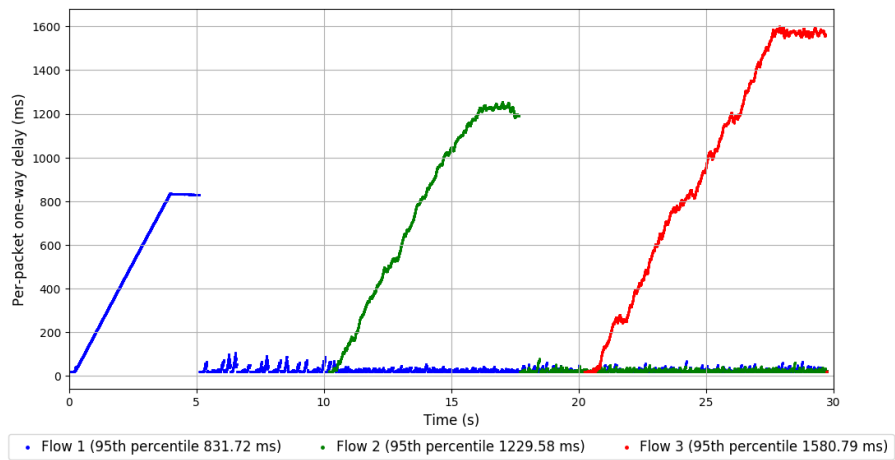
Run 3: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 46.47 Mbit/s)   Flow 1 egress (mean 46.22 Mbit/s)
Flow 2 ingress (mean 44.22 Mbit/s)   Flow 2 egress (mean 43.44 Mbit/s)
Flow 3 ingress (mean 52.72 Mbit/s)   Flow 3 egress (mean 50.43 Mbit/s)

Flow 1 (95th percentile 873.21 ms)   Flow 2 (95th percentile 1200.06 ms)   Flow 3 (95th percentile 1580.43 ms)
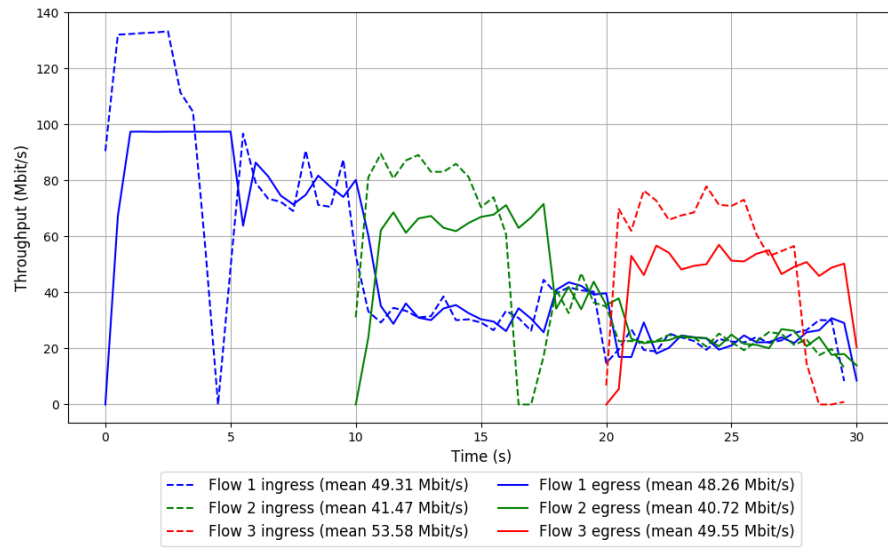
```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 17:44:08
End at: 2019-07-12 17:44:38
Local clock offset: 2.724 ms
Remote clock offset: -4.332 ms


# Below is generated by plot.py at 2019-07-12 18:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.25 Mbit/s
95th percentile per-packet one-way delay: 1433.465 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 46.39 Mbit/s
95th percentile per-packet one-way delay: 547.510 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 38.53 Mbit/s
95th percentile per-packet one-way delay: 1188.219 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 51.18 Mbit/s
95th percentile per-packet one-way delay: 1524.082 ms
Loss rate: 4.27%
```
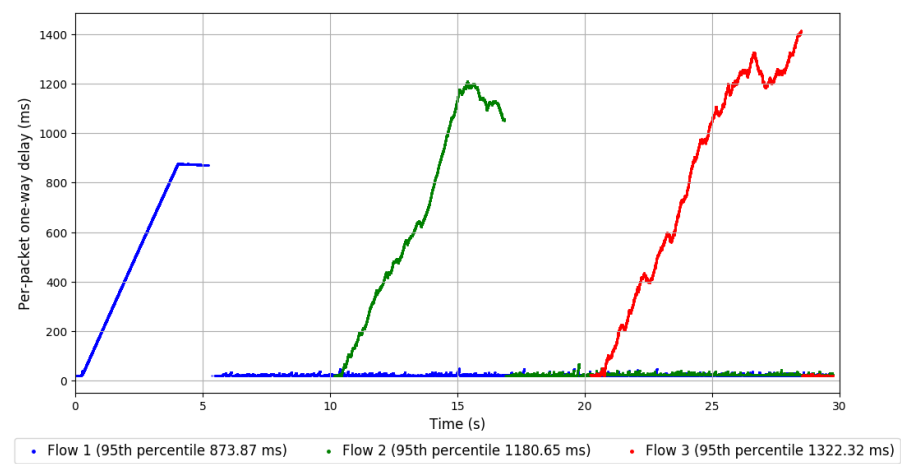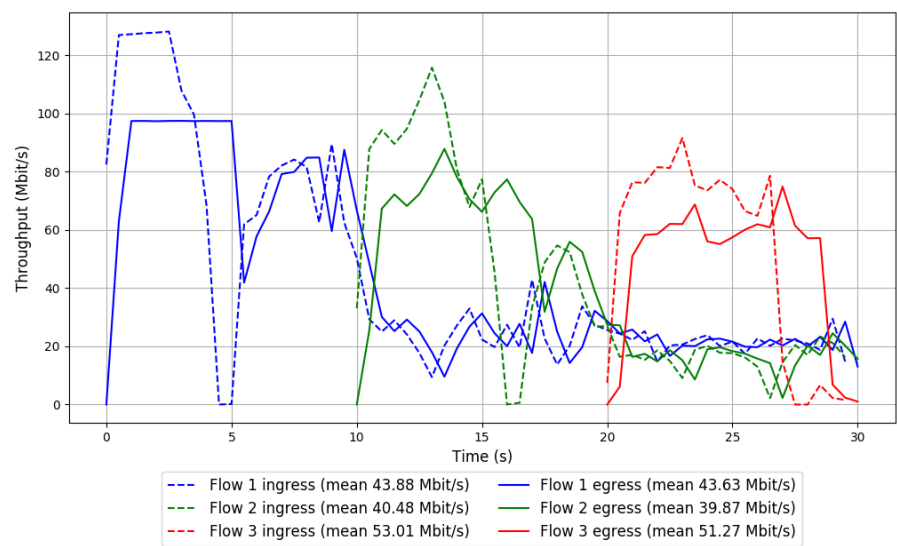
Run 4: Report of Muses_DecisionTreeH0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 18:13:33
End at: 2019-07-12 18:14:03
Local clock offset: 7.577 ms
Remote clock offset: -4.088 ms


# Below is generated by plot.py at 2019-07-12 18:38:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.97 Mbit/s
95th percentile per-packet one-way delay: 1402.083 ms
Loss rate: 3.15%
-- Flow 1:
Average throughput: 48.26 Mbit/s
95th percentile per-packet one-way delay: 831.715 ms
Loss rate: 2.19%
-- Flow 2:
Average throughput: 40.72 Mbit/s
95th percentile per-packet one-way delay: 1229.578 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 49.55 Mbit/s
95th percentile per-packet one-way delay: 1580.788 ms
Loss rate: 7.79%
```

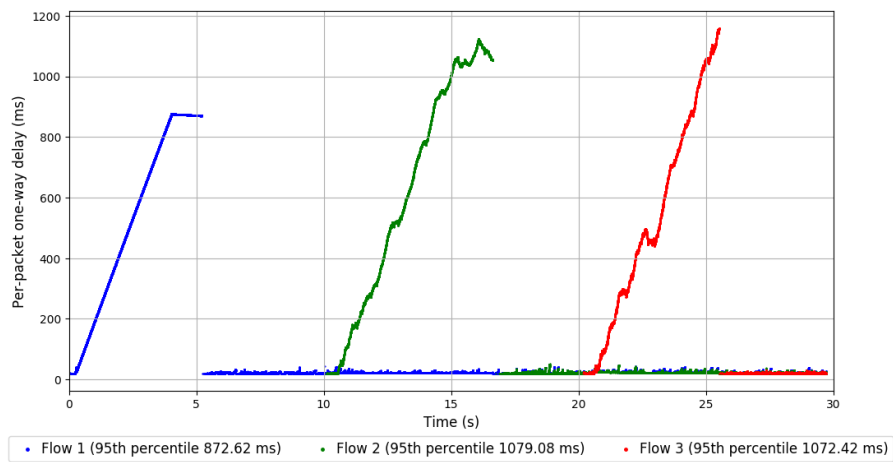Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 16:02:51
End at: 2019-07-12 16:03:21
Local clock offset: 6.164 ms
Remote clock offset: -1.873 ms


# Below is generated by plot.py at 2019-07-12 18:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.37 Mbit/s
95th percentile per-packet one-way delay: 1218.207 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 43.63 Mbit/s
95th percentile per-packet one-way delay: 873.867 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 39.87 Mbit/s
95th percentile per-packet one-way delay: 1180.647 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 51.27 Mbit/s
95th percentile per-packet one-way delay: 1322.323 ms
Loss rate: 3.56%
```

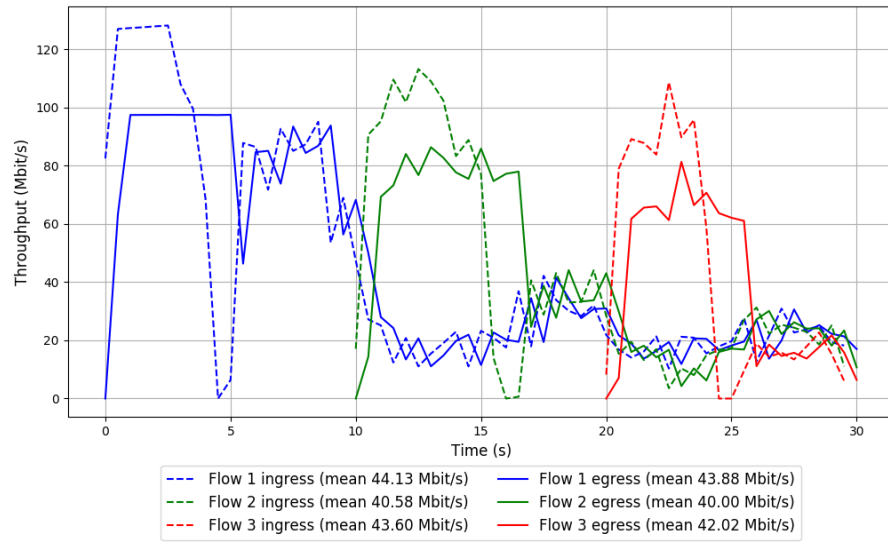Run 1: Report of Muses_DecisionTreeR0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 16:32:28
End at: 2019-07-12 16:32:58
Local clock offset: 3.634 ms
Remote clock offset: -0.276 ms


# Below is generated by plot.py at 2019-07-12 18:38:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.85 Mbit/s
95th percentile per-packet one-way delay: 1044.447 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 43.88 Mbit/s
95th percentile per-packet one-way delay: 872.621 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 1079.075 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 42.02 Mbit/s
95th percentile per-packet one-way delay: 1072.419 ms
Loss rate: 3.85%
```
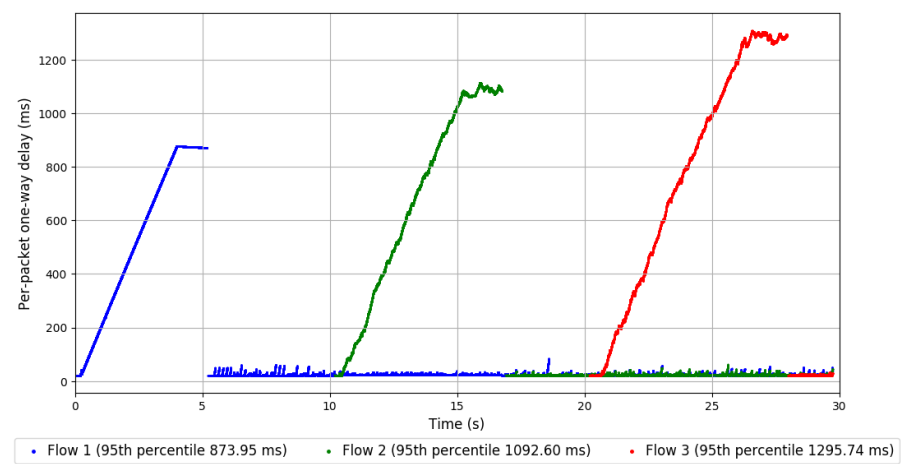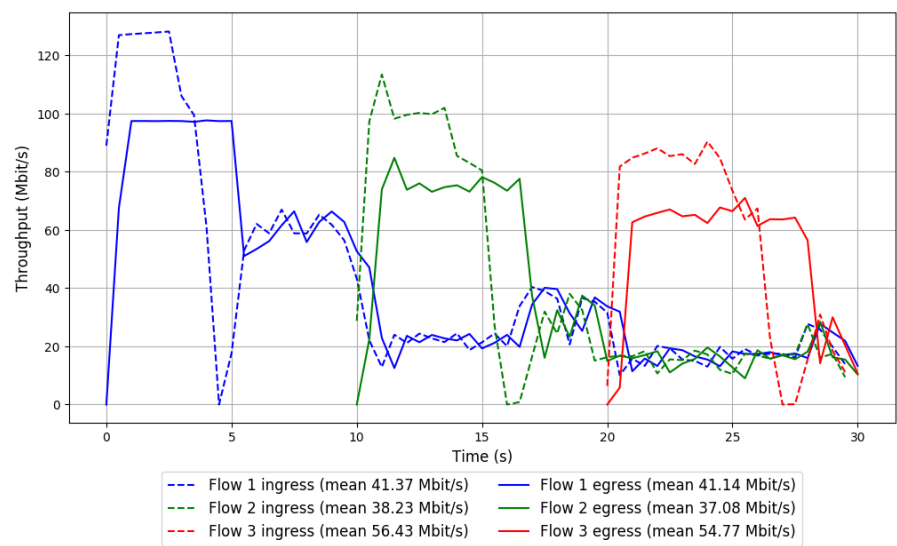
Run 2: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 44.13 Mbit/s) --- Flow 1 egress (mean 43.88 Mbit/s)
Flow 2 ingress (mean 40.58 Mbit/s) --- Flow 2 egress (mean 40.00 Mbit/s)
Flow 3 ingress (mean 43.60 Mbit/s) --- Flow 3 egress (mean 42.02 Mbit/s)

Flow 1 (95th percentile 872.62 ms)   Flow 2 (95th percentile 1079.08 ms)   Flow 3 (95th percentile 1072.42 ms)
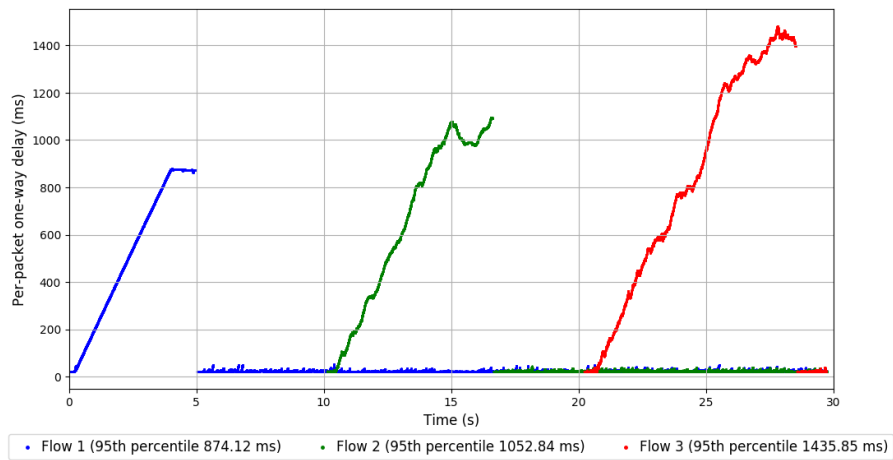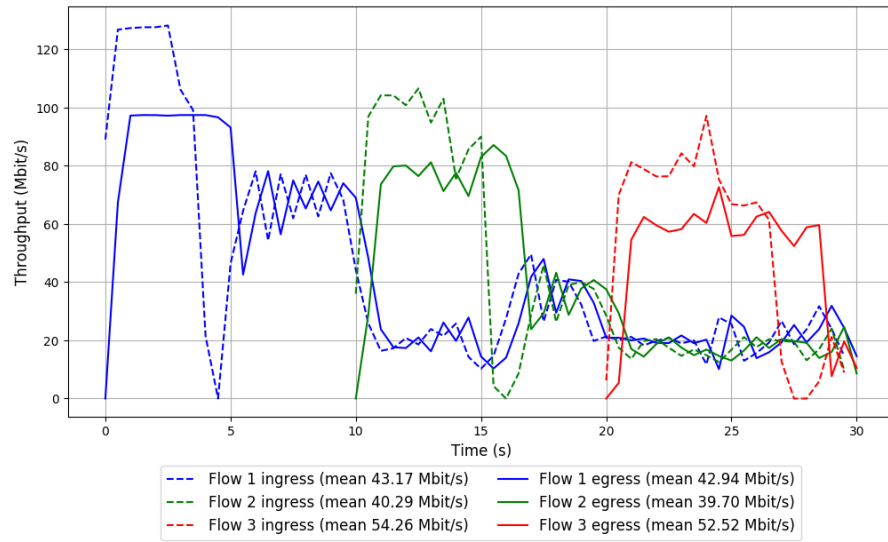
```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 17:02:20
End at: 2019-07-12 17:02:50
Local clock offset: 2.831 ms
Remote clock offset: -2.609 ms


# Below is generated by plot.py at 2019-07-12 18:38:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.19 Mbit/s
95th percentile per-packet one-way delay: 1197.669 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 873.948 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 37.08 Mbit/s
95th percentile per-packet one-way delay: 1092.596 ms
Loss rate: 3.13%
-- Flow 3:
Average throughput: 54.77 Mbit/s
95th percentile per-packet one-way delay: 1295.741 ms
Loss rate: 2.95%
```
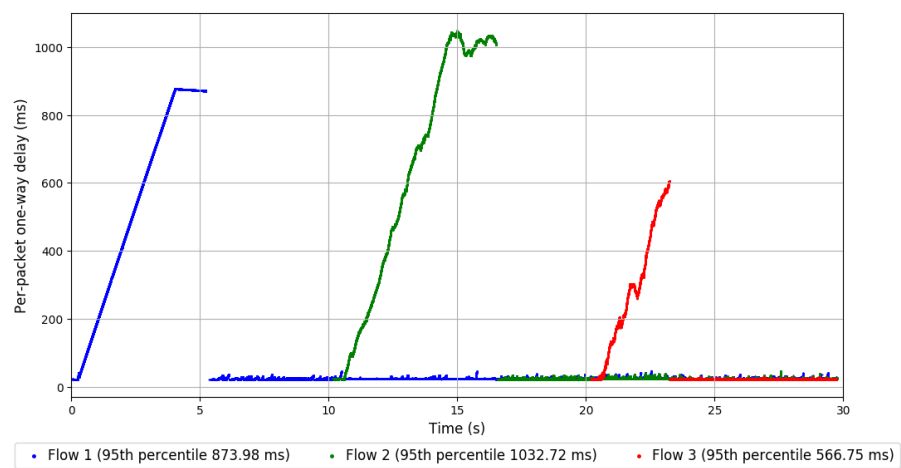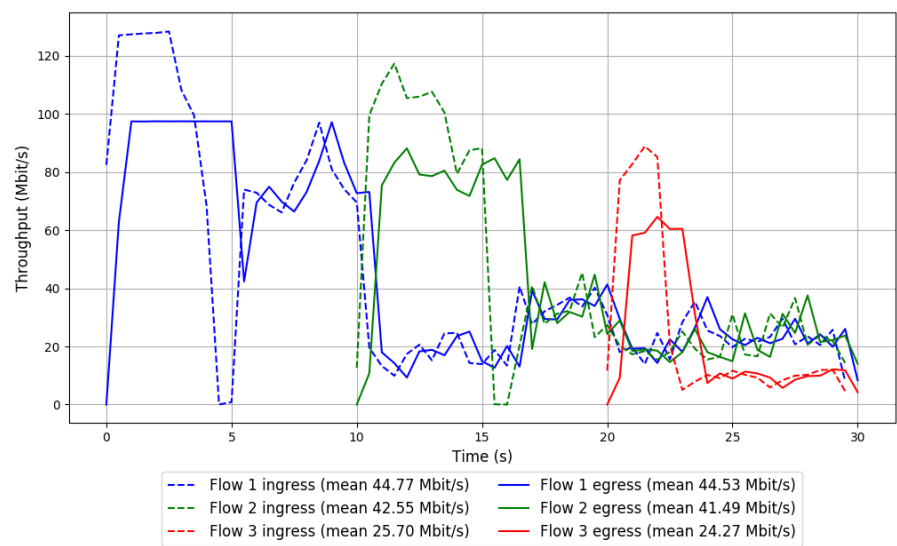
Run 3: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 41.37 Mbit/s) --- Flow 1 egress (mean 41.14 Mbit/s)
Flow 2 ingress (mean 38.23 Mbit/s) --- Flow 2 egress (mean 37.08 Mbit/s)
Flow 3 ingress (mean 56.43 Mbit/s) --- Flow 3 egress (mean 54.77 Mbit/s)

Flow 1 (95th percentile 873.95 ms) · Flow 2 (95th percentile 1092.60 ms) · Flow 3 (95th percentile 1295.74 ms)

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 17:31:42
End at: 2019-07-12 17:32:12
Local clock offset: 2.434 ms
Remote clock offset: -4.201 ms


# Below is generated by plot.py at 2019-07-12 18:39:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.99 Mbit/s
95th percentile per-packet one-way delay: 1277.723 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 42.94 Mbit/s
95th percentile per-packet one-way delay: 874.121 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 39.70 Mbit/s
95th percentile per-packet one-way delay: 1052.838 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 52.52 Mbit/s
95th percentile per-packet one-way delay: 1435.848 ms
Loss rate: 3.59%
```
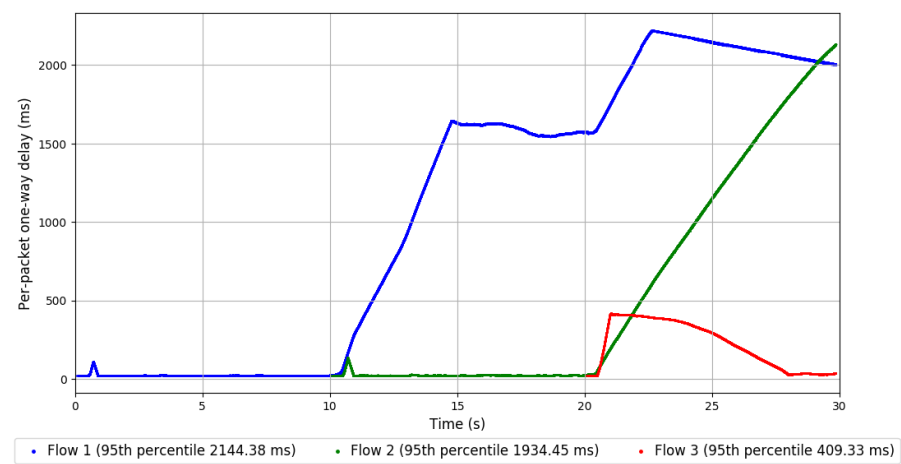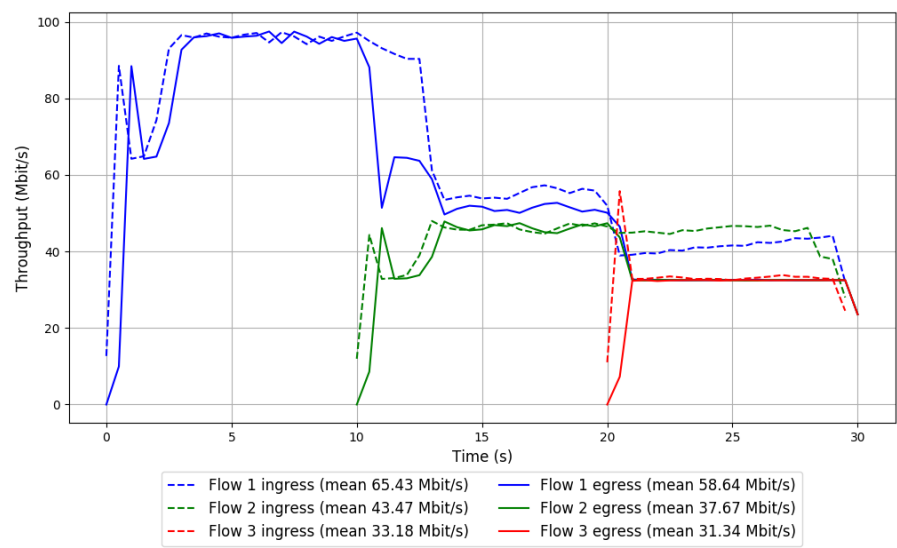
Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 18:01:03
End at: 2019-07-12 18:01:33
Local clock offset: 4.613 ms
Remote clock offset: -5.225 ms


# Below is generated by plot.py at 2019-07-12 18:39:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.67 Mbit/s
95th percentile per-packet one-way delay: 1008.806 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 44.53 Mbit/s
95th percentile per-packet one-way delay: 873.983 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 41.49 Mbit/s
95th percentile per-packet one-way delay: 1032.717 ms
Loss rate: 2.61%
-- Flow 3:
Average throughput: 24.27 Mbit/s
95th percentile per-packet one-way delay: 566.750 ms
Loss rate: 5.88%
```

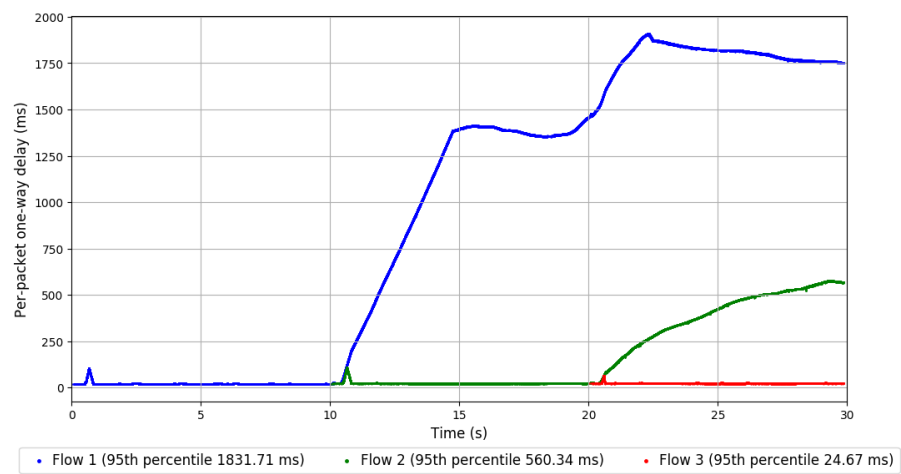Run 5: Report of Muses_DecisionTreeR0 — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-07-12 16:01:37
End at: 2019-07-12 16:02:07
Local clock offset: 7.248 ms
Remote clock offset: -1.421 ms


# Below is generated by plot.py at 2019-07-12 18:39:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.99 Mbit/s
95th percentile per-packet one-way delay: 2105.572 ms
Loss rate: 10.80%
-- Flow 1:
Average throughput: 58.64 Mbit/s
95th percentile per-packet one-way delay: 2144.375 ms
Loss rate: 10.44%
-- Flow 2:
Average throughput: 37.67 Mbit/s
95th percentile per-packet one-way delay: 1934.448 ms
Loss rate: 13.47%
-- Flow 3:
Average throughput: 31.34 Mbit/s
95th percentile per-packet one-way delay: 409.329 ms
Loss rate: 5.89%
```
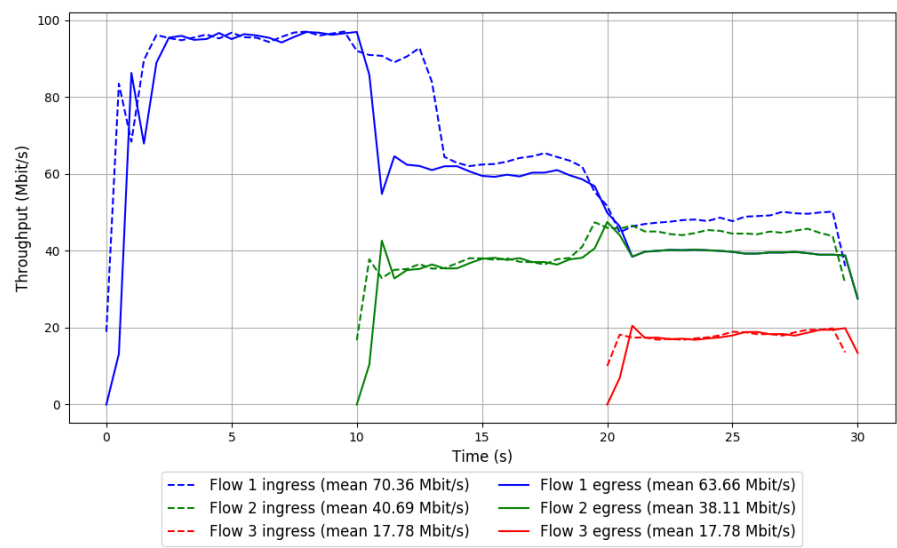
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-07-12 16:31:14
End at: 2019-07-12 16:31:44
Local clock offset: 3.554 ms
Remote clock offset: -0.931 ms


# Below is generated by plot.py at 2019-07-12 18:39:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.84 Mbit/s
95th percentile per-packet one-way delay: 1818.743 ms
Loss rate: 8.24%
-- Flow 1:
Average throughput: 63.66 Mbit/s
95th percentile per-packet one-way delay: 1831.711 ms
Loss rate: 9.59%
-- Flow 2:
Average throughput: 38.11 Mbit/s
95th percentile per-packet one-way delay: 560.337 ms
Loss rate: 6.45%
-- Flow 3:
Average throughput: 17.78 Mbit/s
95th percentile per-packet one-way delay: 24.674 ms
Loss rate: 0.30%
```

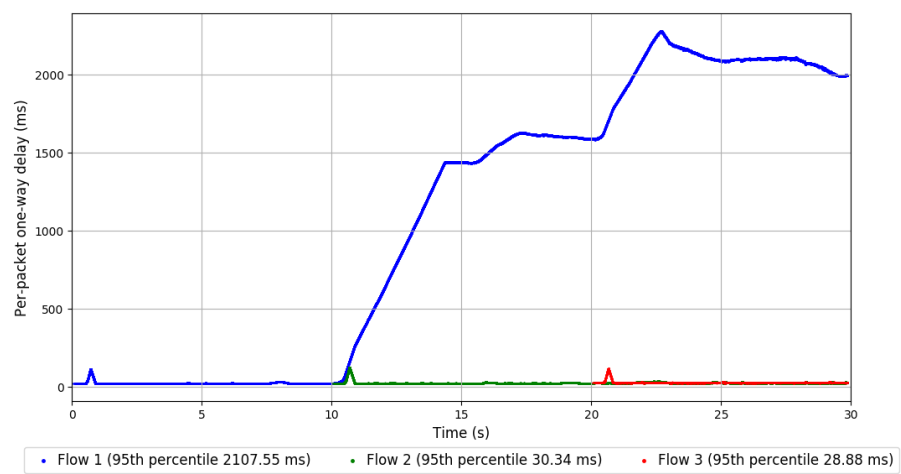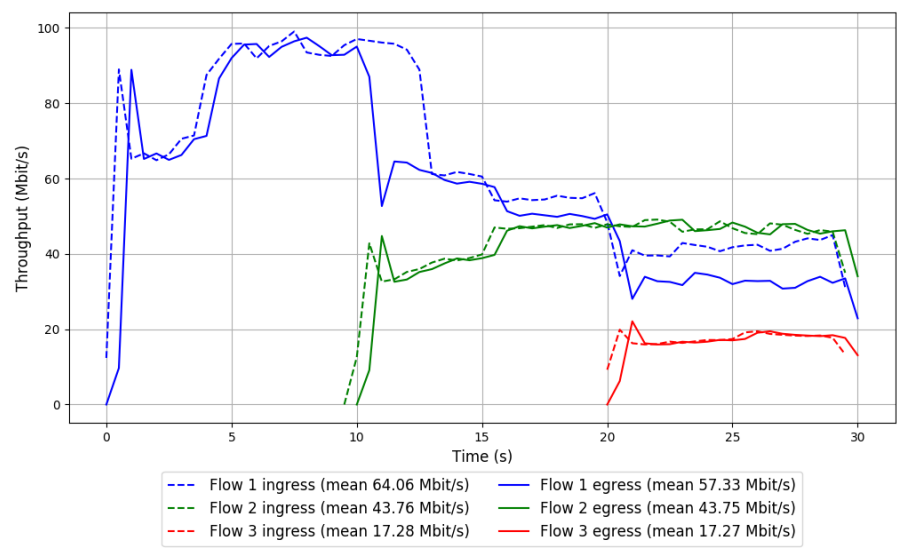## Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 70.36 Mbit/s) --- Flow 1 egress (mean 63.66 Mbit/s)
Flow 2 ingress (mean 40.69 Mbit/s) --- Flow 2 egress (mean 38.11 Mbit/s)
Flow 3 ingress (mean 17.78 Mbit/s) --- Flow 3 egress (mean 17.78 Mbit/s)

Flow 1 (95th percentile 1831.71 ms)   Flow 2 (95th percentile 560.34 ms)   Flow 3 (95th percentile 24.67 ms)
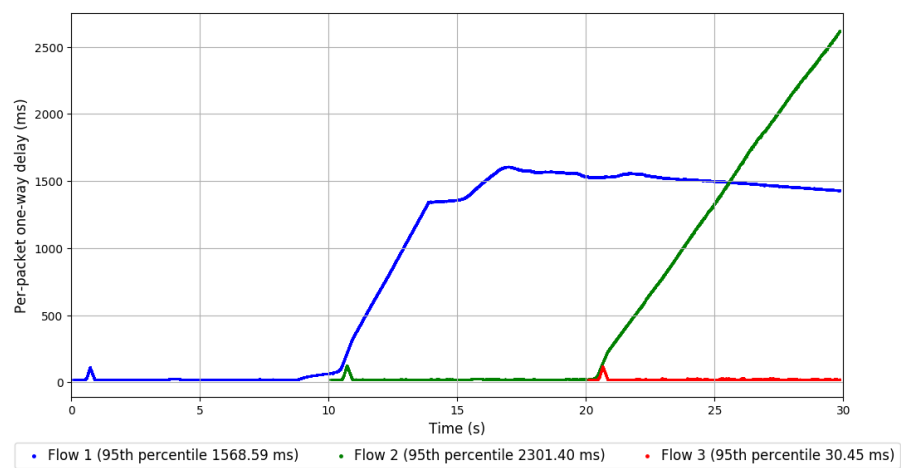
```
Run 3: Statistics of PCC-Allegro

Start at: 2019-07-12 17:01:04
End at: 2019-07-12 17:01:34
Local clock offset: 3.171 ms
Remote clock offset: -1.999 ms


# Below is generated by plot.py at 2019-07-12 18:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.11 Mbit/s
95th percentile per-packet one-way delay: 2099.727 ms
Loss rate: 6.93%
-- Flow 1:
Average throughput: 57.33 Mbit/s
95th percentile per-packet one-way delay: 2107.550 ms
Loss rate: 10.58%
-- Flow 2:
Average throughput: 43.75 Mbit/s
95th percentile per-packet one-way delay: 30.337 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 17.27 Mbit/s
95th percentile per-packet one-way delay: 28.881 ms
Loss rate: 0.34%
```

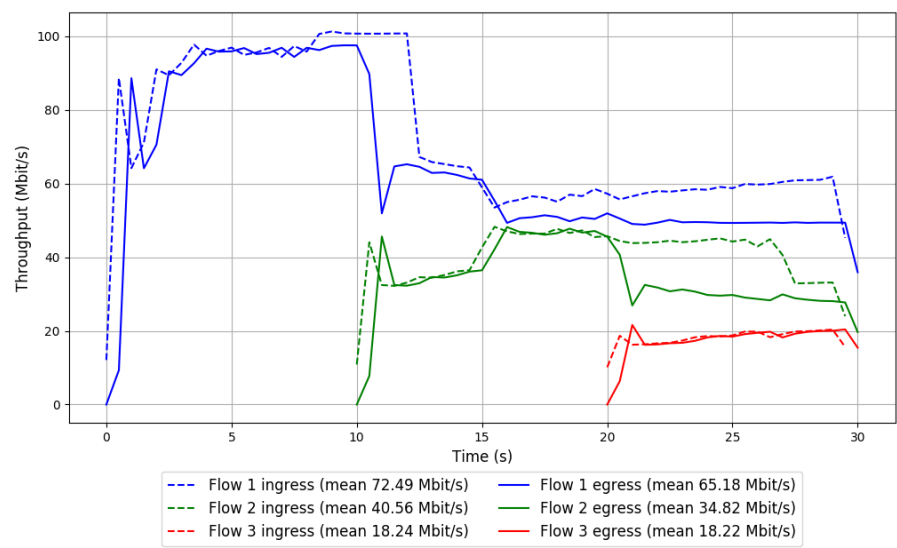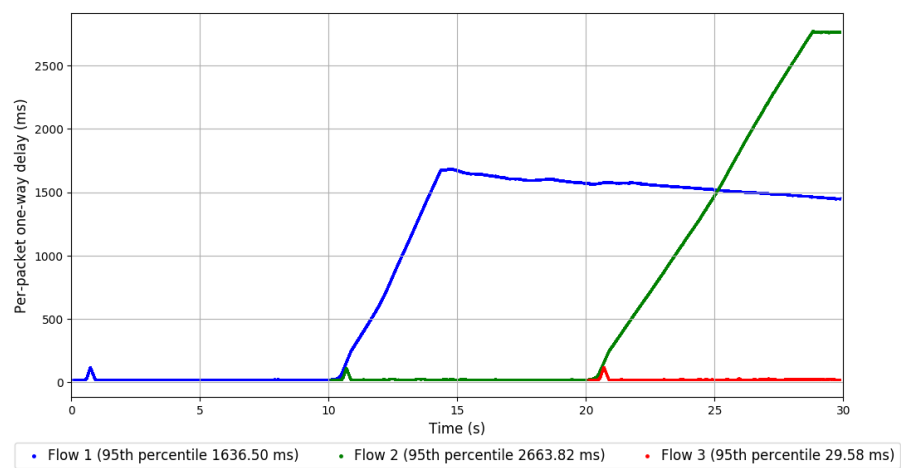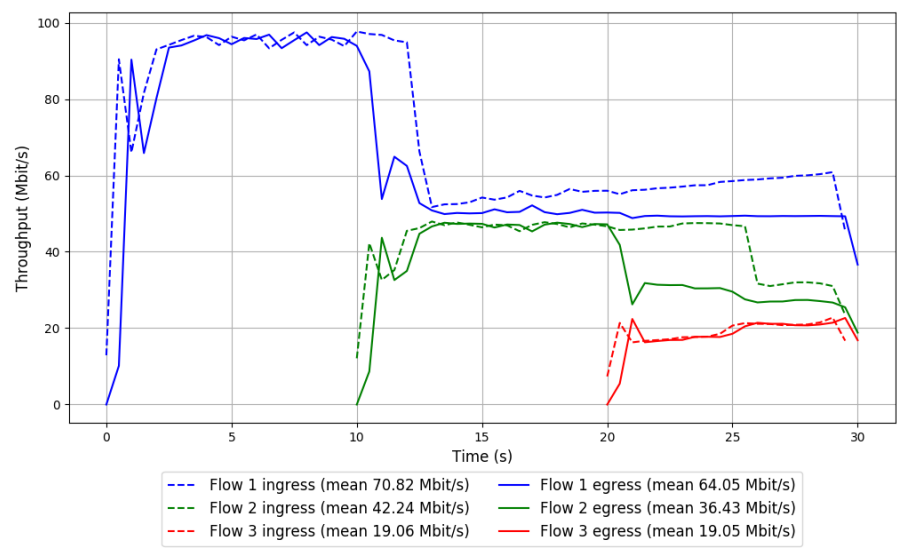Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 64.06 Mbit/s) — Flow 1 egress (mean 57.33 Mbit/s)
Flow 2 ingress (mean 43.76 Mbit/s) — Flow 2 egress (mean 43.75 Mbit/s)
Flow 3 ingress (mean 17.28 Mbit/s) — Flow 3 egress (mean 17.27 Mbit/s)

Flow 1 (95th percentile 2107.55 ms)   Flow 2 (95th percentile 30.34 ms)   Flow 3 (95th percentile 28.88 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-07-12 17:30:30
End at: 2019-07-12 17:31:00
Local clock offset: 2.12 ms
Remote clock offset: -3.986 ms


# Below is generated by plot.py at 2019-07-12 18:39:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.31 Mbit/s
95th percentile per-packet one-way delay: 1593.238 ms
Loss rate: 10.65%
-- Flow 1:
Average throughput: 65.18 Mbit/s
95th percentile per-packet one-way delay: 1568.594 ms
Loss rate: 10.16%
-- Flow 2:
Average throughput: 34.82 Mbit/s
95th percentile per-packet one-way delay: 2301.396 ms
Loss rate: 14.27%
-- Flow 3:
Average throughput: 18.22 Mbit/s
95th percentile per-packet one-way delay: 30.448 ms
Loss rate: 0.35%
```

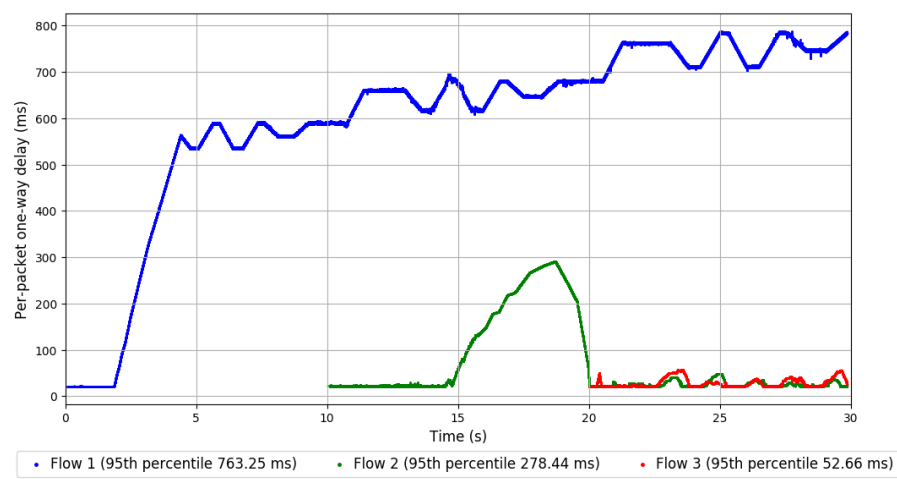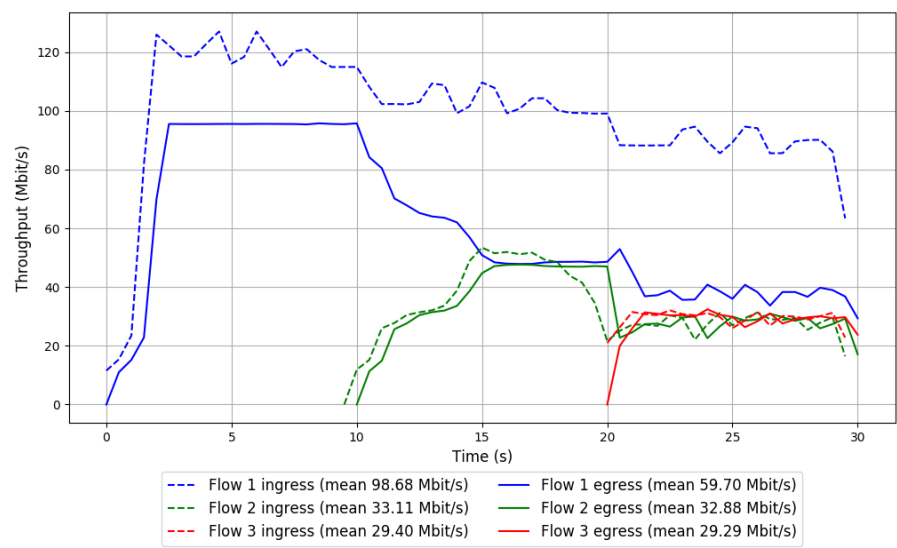Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 72.49 Mbit/s) --- Flow 1 egress (mean 65.18 Mbit/s)
Flow 2 ingress (mean 40.56 Mbit/s) --- Flow 2 egress (mean 34.82 Mbit/s)
Flow 3 ingress (mean 18.24 Mbit/s) --- Flow 3 egress (mean 18.22 Mbit/s)

Flow 1 (95th percentile 1568.59 ms)   Flow 2 (95th percentile 2301.40 ms)   Flow 3 (95th percentile 30.45 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-07-12 17:59:51
End at: 2019-07-12 18:00:21
Local clock offset: 3.813 ms
Remote clock offset: -4.454 ms


# Below is generated by plot.py at 2019-07-12 18:39:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.52 Mbit/s
95th percentile per-packet one-way delay: 1676.515 ms
Loss rate: 10.20%
-- Flow 1:
Average throughput: 64.05 Mbit/s
95th percentile per-packet one-way delay: 1636.498 ms
Loss rate: 9.62%
-- Flow 2:
Average throughput: 36.43 Mbit/s
95th percentile per-packet one-way delay: 2663.824 ms
Loss rate: 13.85%
-- Flow 3:
Average throughput: 19.05 Mbit/s
95th percentile per-packet one-way delay: 29.580 ms
Loss rate: 0.34%
```

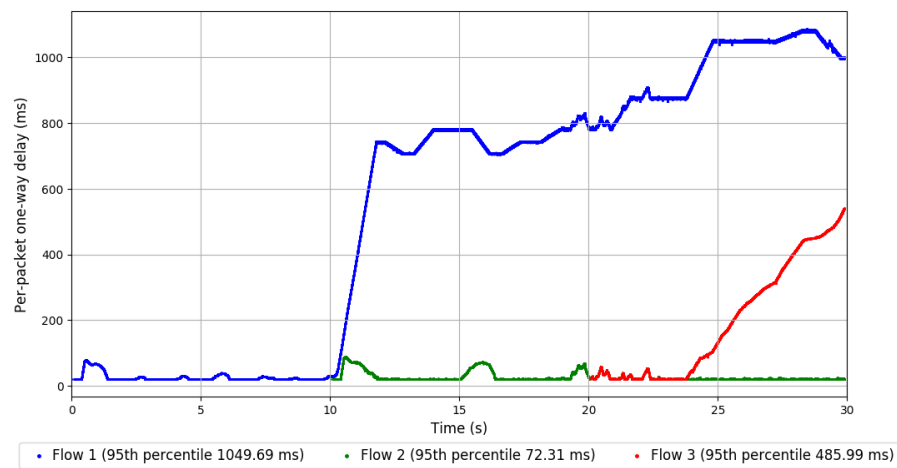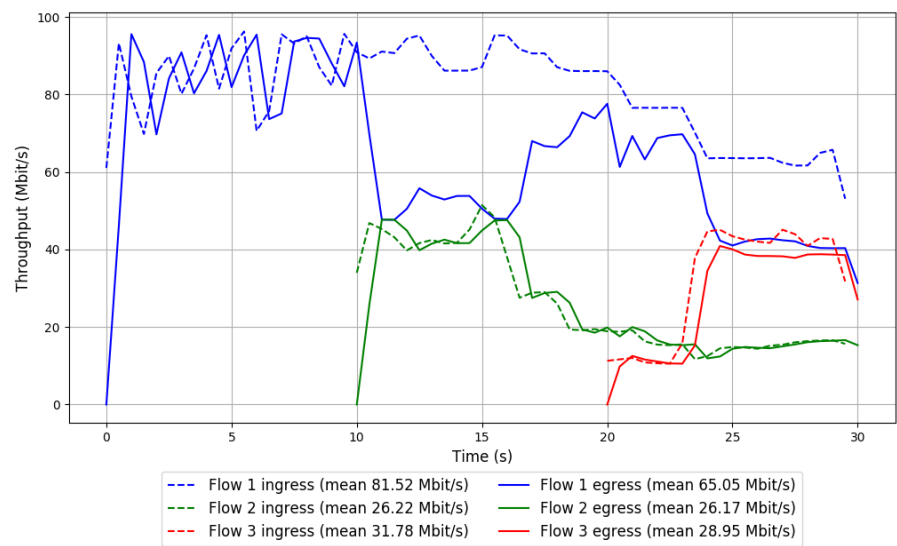## Run 5: Report of PCC-Allegro — Data Link

- Flow 1 ingress (mean 70.82 Mbit/s)
- Flow 1 egress (mean 64.05 Mbit/s)
- Flow 2 ingress (mean 42.24 Mbit/s)
- Flow 2 egress (mean 36.43 Mbit/s)
- Flow 3 ingress (mean 19.06 Mbit/s)
- Flow 3 egress (mean 19.05 Mbit/s)

- Flow 1 (95th percentile 1636.50 ms)
- Flow 2 (95th percentile 2663.82 ms)
- Flow 3 (95th percentile 29.58 ms)

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```
Run 1: Statistics of PCC-Expr

Start at: 2019-07-12 16:12:50
End at: 2019-07-12 16:13:20
Local clock offset: 4.381 ms
Remote clock offset: -1.187 ms


# Below is generated by plot.py at 2019-07-12 18:41:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.23 Mbit/s
95th percentile per-packet one-way delay: 760.264 ms
Loss rate: 30.14%
-- Flow 1:
Average throughput: 59.70 Mbit/s
95th percentile per-packet one-way delay: 763.252 ms
Loss rate: 39.59%
-- Flow 2:
Average throughput: 32.88 Mbit/s
95th percentile per-packet one-way delay: 278.437 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 29.29 Mbit/s
95th percentile per-packet one-way delay: 52.659 ms
Loss rate: 0.61%
```
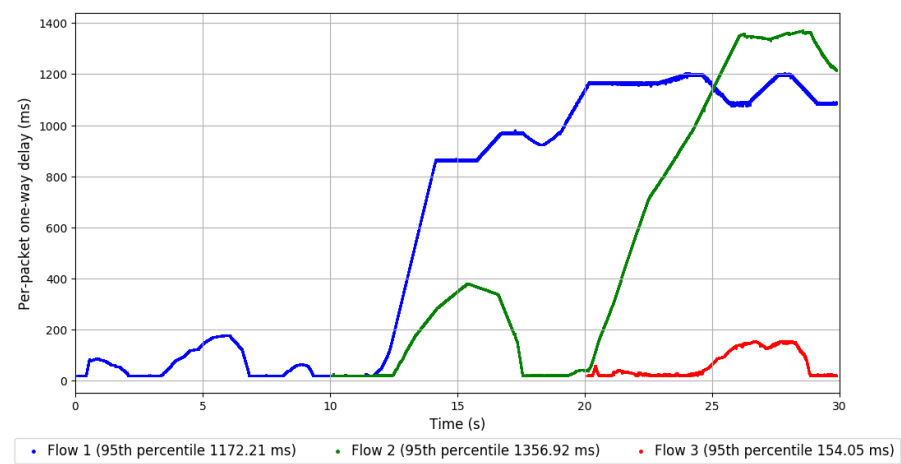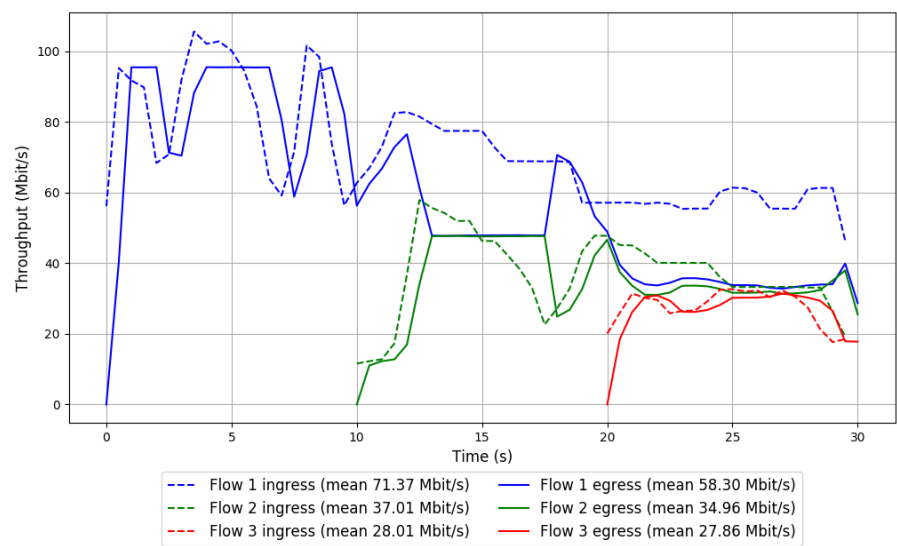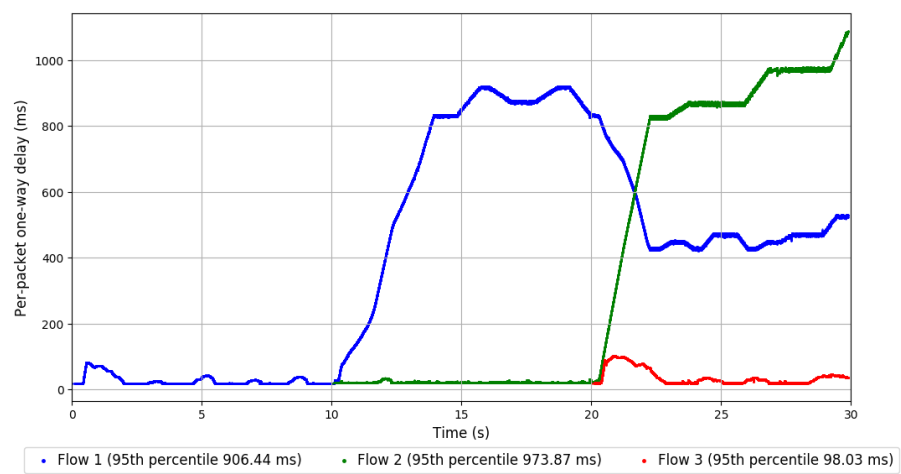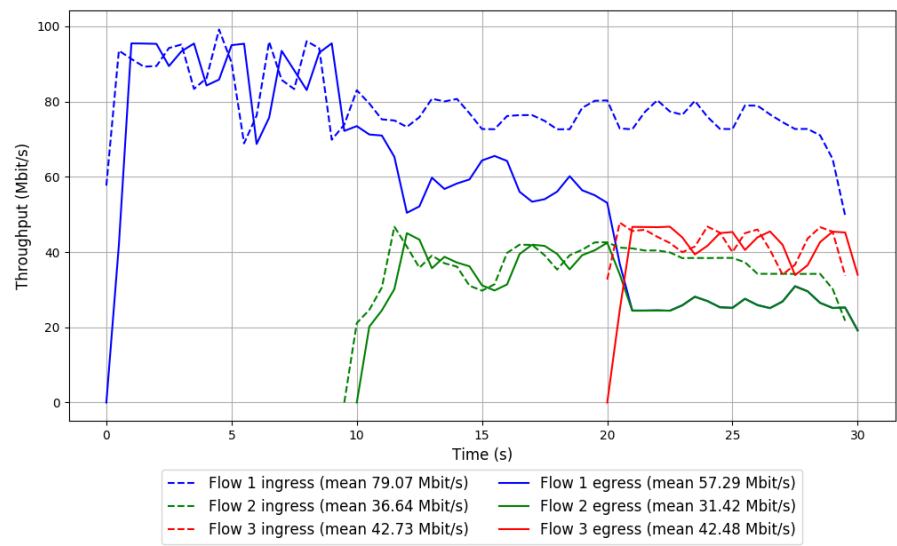
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-07-12 16:42:25
End at: 2019-07-12 16:42:55
Local clock offset: 3.515 ms
Remote clock offset: -1.722 ms


# Below is generated by plot.py at 2019-07-12 18:41:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.00 Mbit/s
95th percentile per-packet one-way delay: 1047.178 ms
Loss rate: 16.04%
-- Flow 1:
Average throughput: 65.05 Mbit/s
95th percentile per-packet one-way delay: 1049.695 ms
Loss rate: 20.28%
-- Flow 2:
Average throughput: 26.17 Mbit/s
95th percentile per-packet one-way delay: 72.309 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 28.95 Mbit/s
95th percentile per-packet one-way delay: 485.993 ms
Loss rate: 9.14%
```

Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 81.52 Mbit/s) ---- Flow 1 egress (mean 65.05 Mbit/s)
Flow 2 ingress (mean 26.22 Mbit/s) ---- Flow 2 egress (mean 26.17 Mbit/s)
Flow 3 ingress (mean 31.78 Mbit/s) ---- Flow 3 egress (mean 28.95 Mbit/s)

Flow 1 (95th percentile 1049.69 ms) • Flow 2 (95th percentile 72.31 ms) • Flow 3 (95th percentile 485.99 ms)
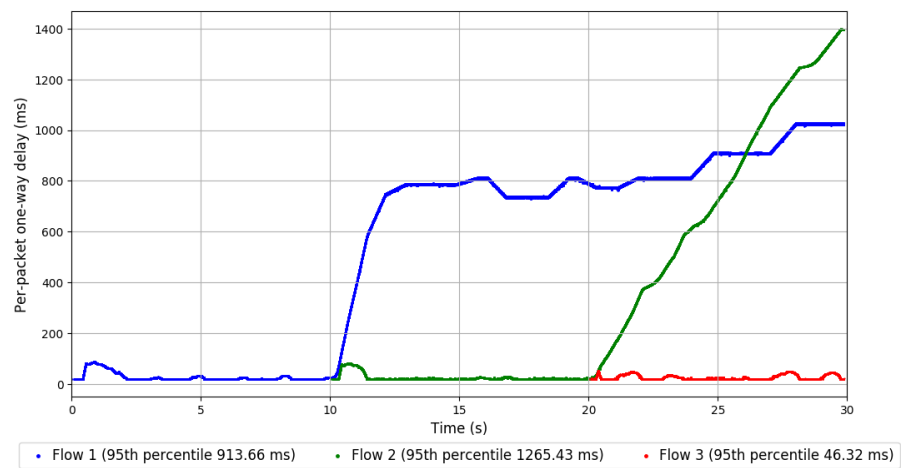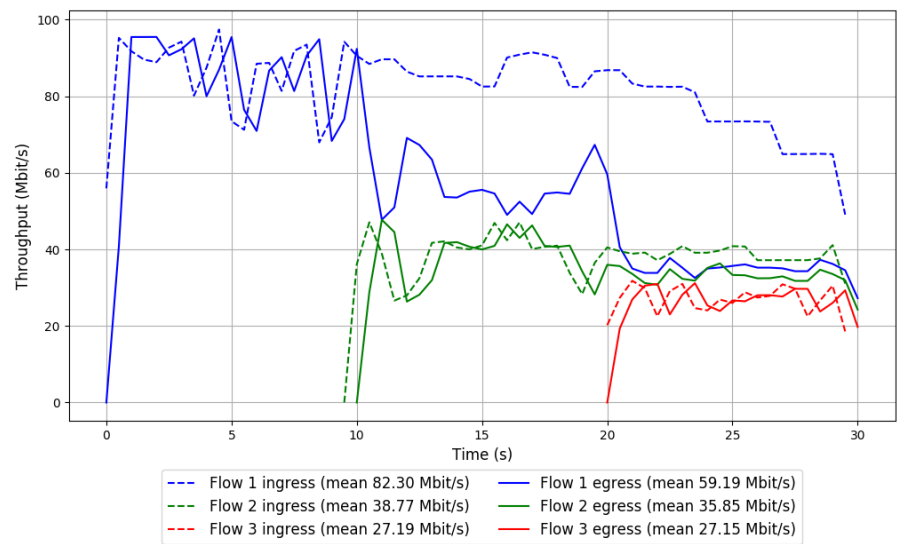
```
Run 3: Statistics of PCC-Expr

Start at: 2019-07-12 17:12:17
End at: 2019-07-12 17:12:47
Local clock offset: 3.057 ms
Remote clock offset: -2.456 ms


# Below is generated by plot.py at 2019-07-12 18:41:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.72 Mbit/s
95th percentile per-packet one-way delay: 1233.295 ms
Loss rate: 13.87%
-- Flow 1:
Average throughput: 58.30 Mbit/s
95th percentile per-packet one-way delay: 1172.210 ms
Loss rate: 18.39%
-- Flow 2:
Average throughput: 34.96 Mbit/s
95th percentile per-packet one-way delay: 1356.920 ms
Loss rate: 5.68%
-- Flow 3:
Average throughput: 27.86 Mbit/s
95th percentile per-packet one-way delay: 154.051 ms
Loss rate: 0.86%
```

Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 71.37 Mbit/s) ---- Flow 1 egress (mean 58.30 Mbit/s)
Flow 2 ingress (mean 37.01 Mbit/s) ---- Flow 2 egress (mean 34.96 Mbit/s)
Flow 3 ingress (mean 28.01 Mbit/s) ---- Flow 3 egress (mean 27.86 Mbit/s)

Flow 1 (95th percentile 1172.21 ms)   Flow 2 (95th percentile 1356.92 ms)   Flow 3 (95th percentile 154.05 ms)

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```
Run 4: Statistics of PCC-Expr

Start at: 2019-07-12 17:41:35
End at: 2019-07-12 17:42:05
Local clock offset: 2.617 ms
Remote clock offset: -2.062 ms


# Below is generated by plot.py at 2019-07-12 18:41:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.19 Mbit/s
95th percentile per-packet one-way delay: 915.780 ms
Loss rate: 21.64%
-- Flow 1:
Average throughput: 57.29 Mbit/s
95th percentile per-packet one-way delay: 906.436 ms
Loss rate: 27.60%
-- Flow 2:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 973.869 ms
Loss rate: 14.35%
-- Flow 3:
Average throughput: 42.48 Mbit/s
95th percentile per-packet one-way delay: 98.027 ms
Loss rate: 0.86%
```
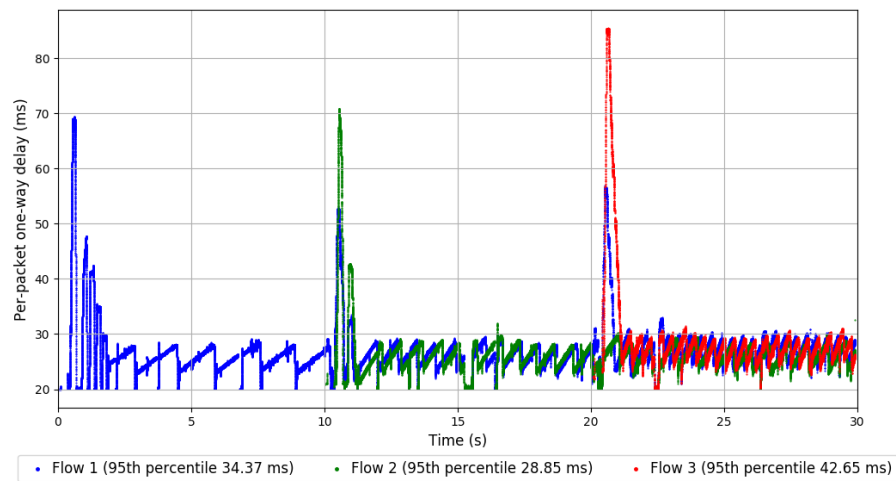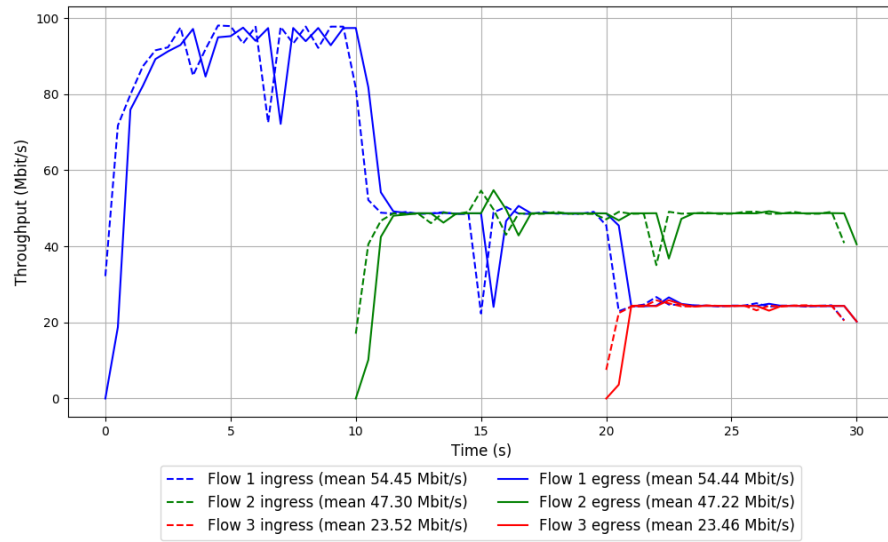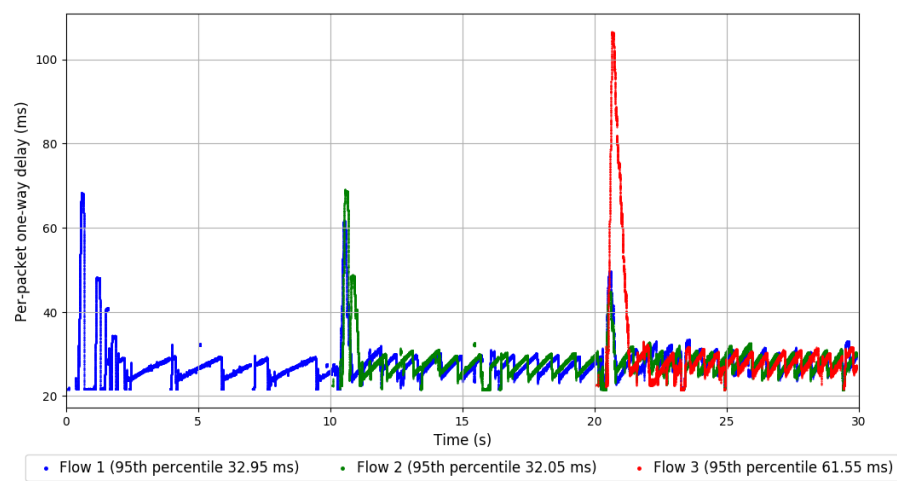
Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 79.07 Mbit/s) — Flow 1 egress (mean 57.29 Mbit/s)
Flow 2 ingress (mean 36.64 Mbit/s) — Flow 2 egress (mean 31.42 Mbit/s)
Flow 3 ingress (mean 42.73 Mbit/s) — Flow 3 egress (mean 42.48 Mbit/s)

Flow 1 (95th percentile 906.44 ms) • Flow 2 (95th percentile 973.87 ms) • Flow 3 (95th percentile 98.03 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2019-07-12 18:10:54
End at: 2019-07-12 18:11:24
Local clock offset: 7.057 ms
Remote clock offset: -2.387 ms


# Below is generated by plot.py at 2019-07-12 18:41:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.97 Mbit/s
95th percentile per-packet one-way delay: 1023.701 ms
Loss rate: 21.52%
-- Flow 1:
Average throughput: 59.19 Mbit/s
95th percentile per-packet one-way delay: 913.665 ms
Loss rate: 28.17%
-- Flow 2:
Average throughput: 35.85 Mbit/s
95th percentile per-packet one-way delay: 1265.427 ms
Loss rate: 7.64%
-- Flow 3:
Average throughput: 27.15 Mbit/s
95th percentile per-packet one-way delay: 46.321 ms
Loss rate: 0.37%
```
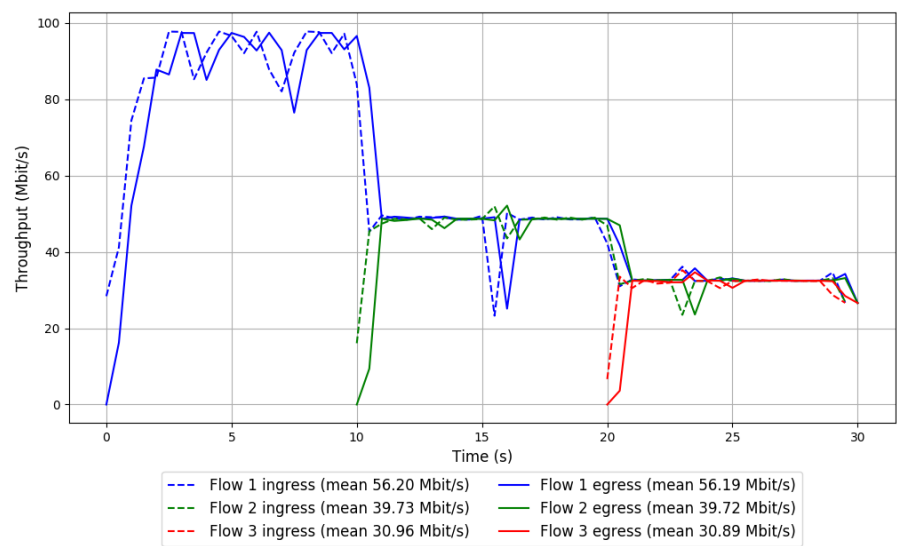
Run 5: Report of PCC-Expr — Data Link

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```
Run 1: Statistics of QUIC Cubic

Start at: 2019-07-12 16:05:19
End at: 2019-07-12 16:05:49
Local clock offset: 5.703 ms
Remote clock offset: -0.538 ms


# Below is generated by plot.py at 2019-07-12 18:41:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.57 Mbit/s
95th percentile per-packet one-way delay: 30.636 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 54.44 Mbit/s
95th percentile per-packet one-way delay: 34.367 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 47.22 Mbit/s
95th percentile per-packet one-way delay: 28.851 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 23.46 Mbit/s
95th percentile per-packet one-way delay: 42.649 ms
Loss rate: 0.50%
```
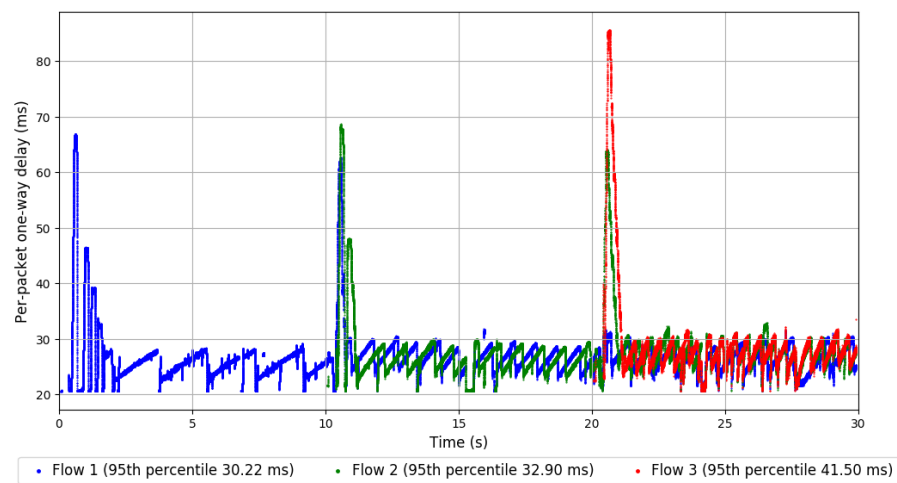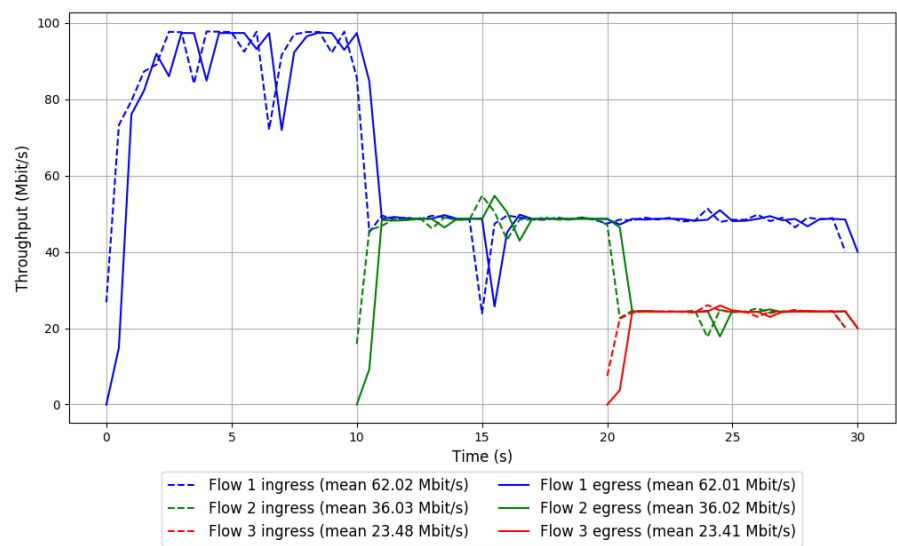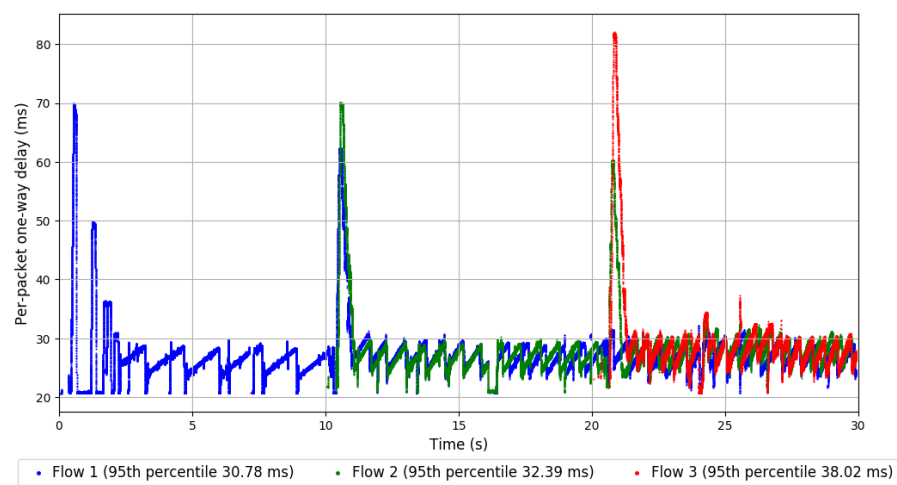
Run 1: Report of QUIC Cubic — Data Link

- - - - Flow 1 ingress (mean 54.45 Mbit/s) ——— Flow 1 egress (mean 54.44 Mbit/s)
- - - - Flow 2 ingress (mean 47.30 Mbit/s) ——— Flow 2 egress (mean 47.22 Mbit/s)
- - - - Flow 3 ingress (mean 23.52 Mbit/s) ——— Flow 3 egress (mean 23.46 Mbit/s)

- Flow 1 (95th percentile 34.37 ms)   - Flow 2 (95th percentile 28.85 ms)   - Flow 3 (95th percentile 42.65 ms)
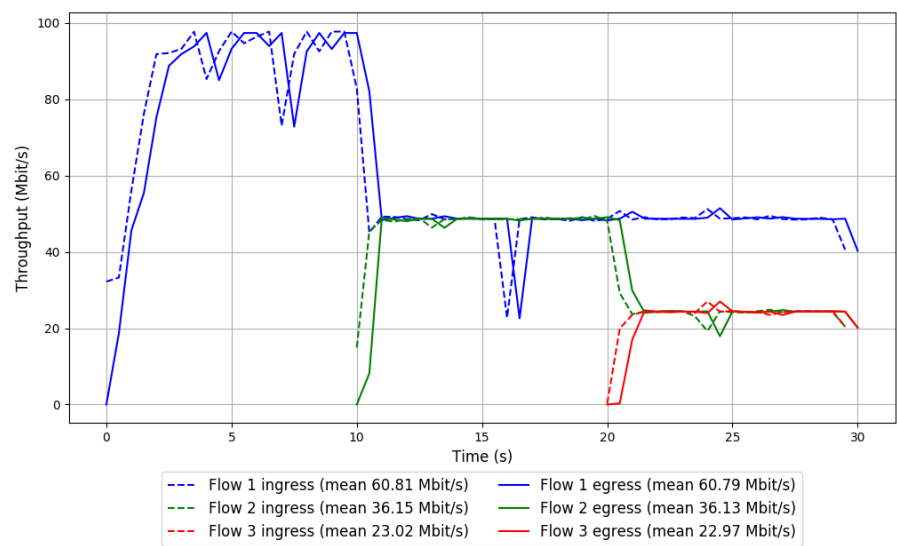
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```
Run 2: Statistics of QUIC Cubic

Start at: 2019-07-12 16:34:53
End at: 2019-07-12 16:35:23
Local clock offset: 3.716 ms
Remote clock offset: -2.004 ms


# Below is generated by plot.py at 2019-07-12 18:41:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.80 Mbit/s
95th percentile per-packet one-way delay: 33.403 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 56.19 Mbit/s
95th percentile per-packet one-way delay: 32.952 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.72 Mbit/s
95th percentile per-packet one-way delay: 32.053 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 30.89 Mbit/s
95th percentile per-packet one-way delay: 61.553 ms
Loss rate: 0.45%
```

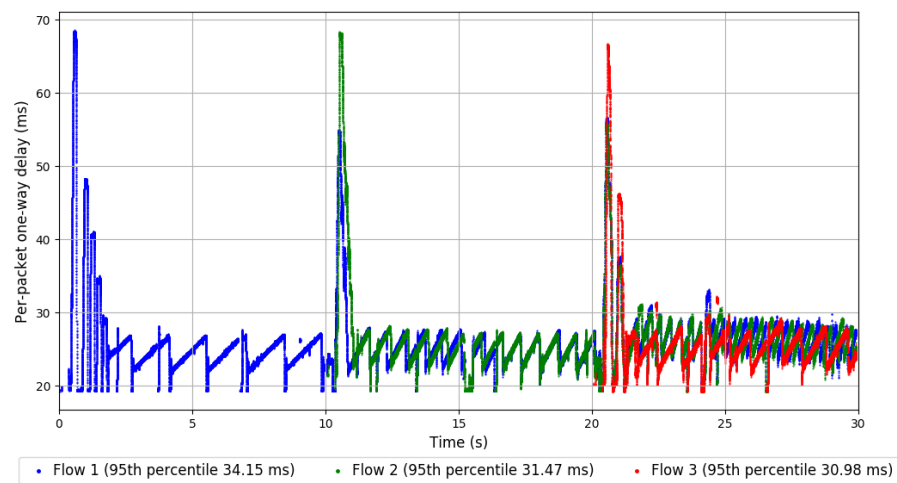Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-07-12 17:04:42
End at: 2019-07-12 17:05:12
Local clock offset: 3.045 ms
Remote clock offset: -1.94 ms


# Below is generated by plot.py at 2019-07-12 18:41:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.69 Mbit/s
95th percentile per-packet one-way delay: 31.159 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 62.01 Mbit/s
95th percentile per-packet one-way delay: 30.221 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 36.02 Mbit/s
95th percentile per-packet one-way delay: 32.901 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 23.41 Mbit/s
95th percentile per-packet one-way delay: 41.498 ms
Loss rate: 0.52%
```
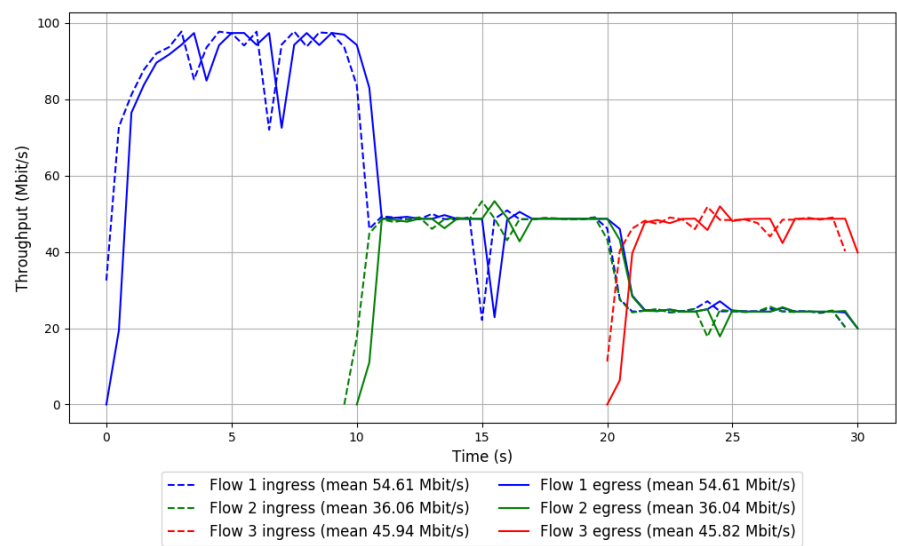
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-07-12 17:34:04
End at: 2019-07-12 17:34:34
Local clock offset: 2.91 ms
Remote clock offset: -3.077 ms


# Below is generated by plot.py at 2019-07-12 18:41:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.39 Mbit/s
95th percentile per-packet one-way delay: 31.848 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 60.79 Mbit/s
95th percentile per-packet one-way delay: 30.779 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 36.13 Mbit/s
95th percentile per-packet one-way delay: 32.391 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 22.97 Mbit/s
95th percentile per-packet one-way delay: 38.025 ms
Loss rate: 0.50%
```
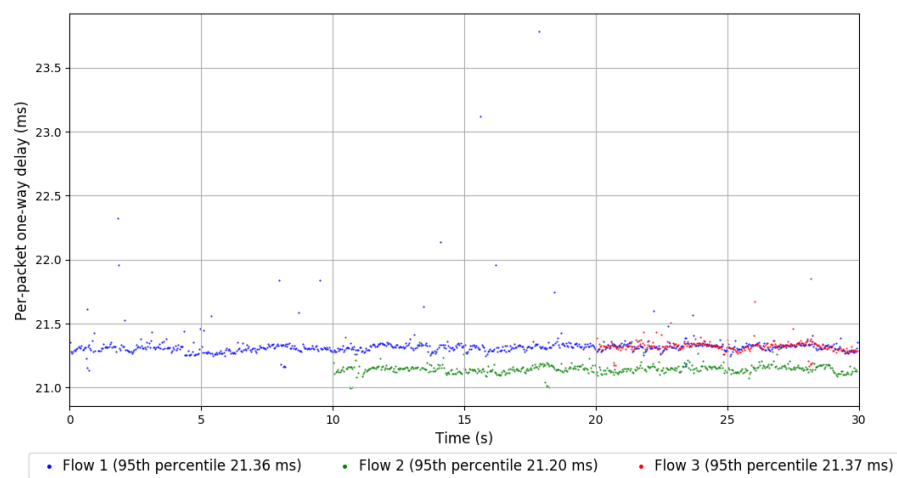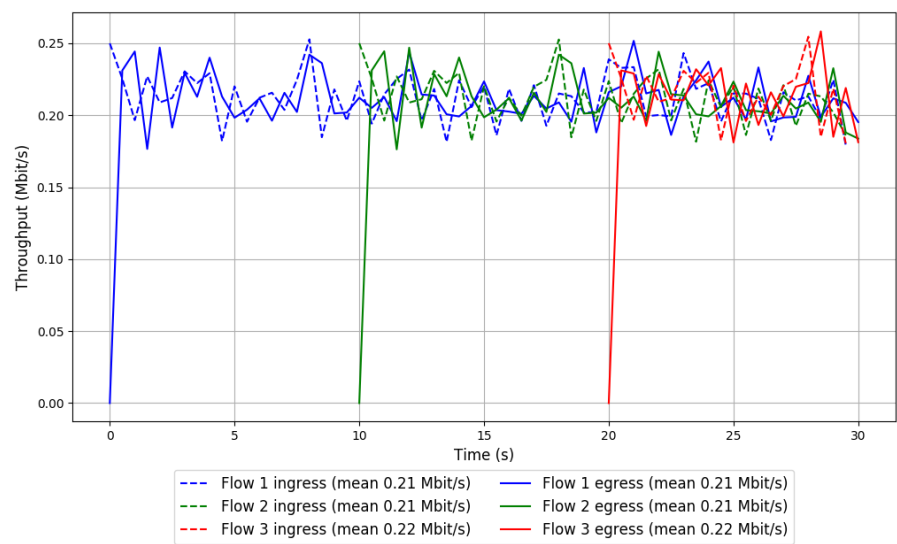
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-07-12 18:03:26
End at: 2019-07-12 18:03:56
Local clock offset: 4.954 ms
Remote clock offset: -3.051 ms


# Below is generated by plot.py at 2019-07-12 18:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.72 Mbit/s
95th percentile per-packet one-way delay: 33.342 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 54.61 Mbit/s
95th percentile per-packet one-way delay: 34.145 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 36.04 Mbit/s
95th percentile per-packet one-way delay: 31.469 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 45.82 Mbit/s
95th percentile per-packet one-way delay: 30.978 ms
Loss rate: 0.51%
```
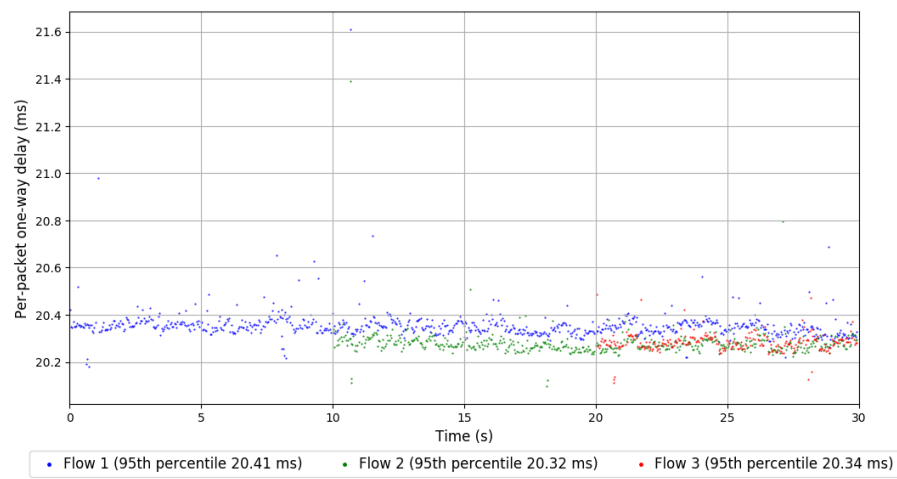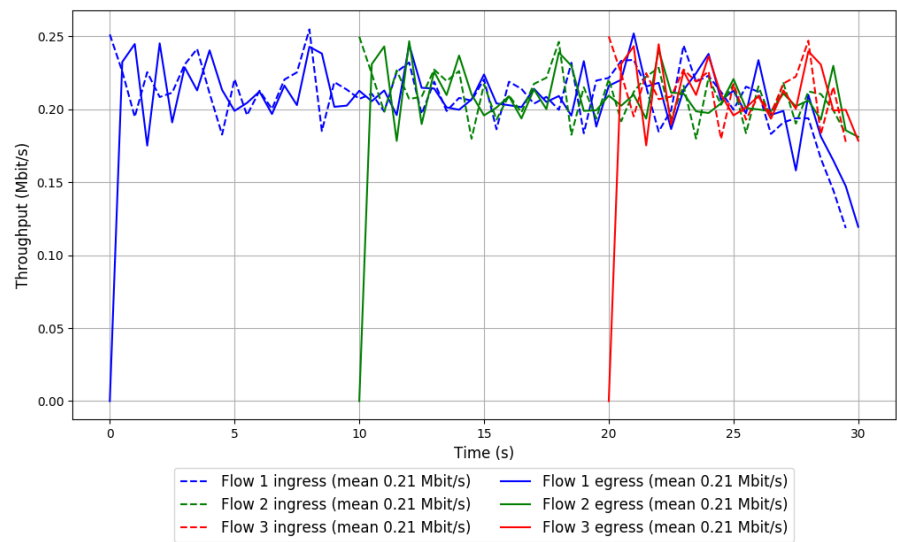
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 54.61 Mbit/s) — — — Flow 1 egress (mean 54.61 Mbit/s)
Flow 2 ingress (mean 36.06 Mbit/s) — — — Flow 2 egress (mean 36.04 Mbit/s)
Flow 3 ingress (mean 45.94 Mbit/s) — — — Flow 3 egress (mean 45.82 Mbit/s)

• Flow 1 (95th percentile 34.15 ms)   • Flow 2 (95th percentile 31.47 ms)   • Flow 3 (95th percentile 30.98 ms)

```
Run 1: Statistics of SCReAM

Start at: 2019-07-12 16:23:55
End at: 2019-07-12 16:24:25
Local clock offset: 3.459 ms
Remote clock offset: -2.019 ms


# Below is generated by plot.py at 2019-07-12 18:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 21.358 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 21.364 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 21.198 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 21.374 ms
Loss rate: 0.36%
```
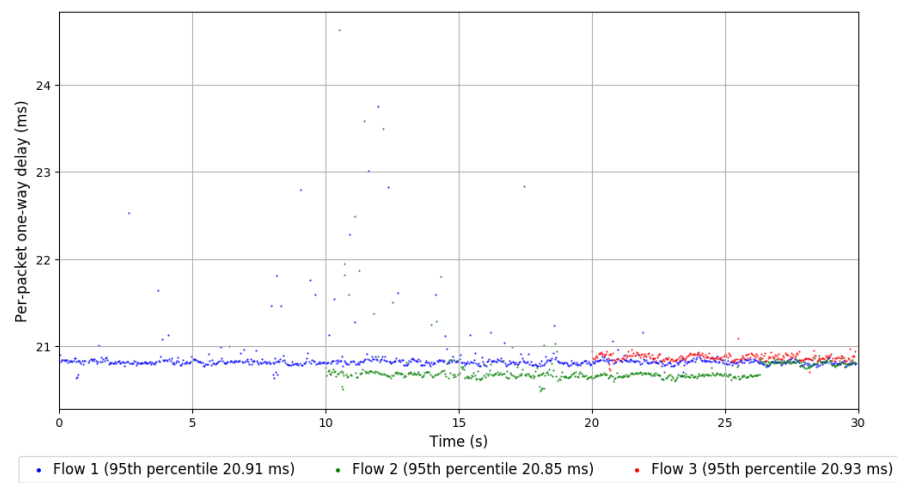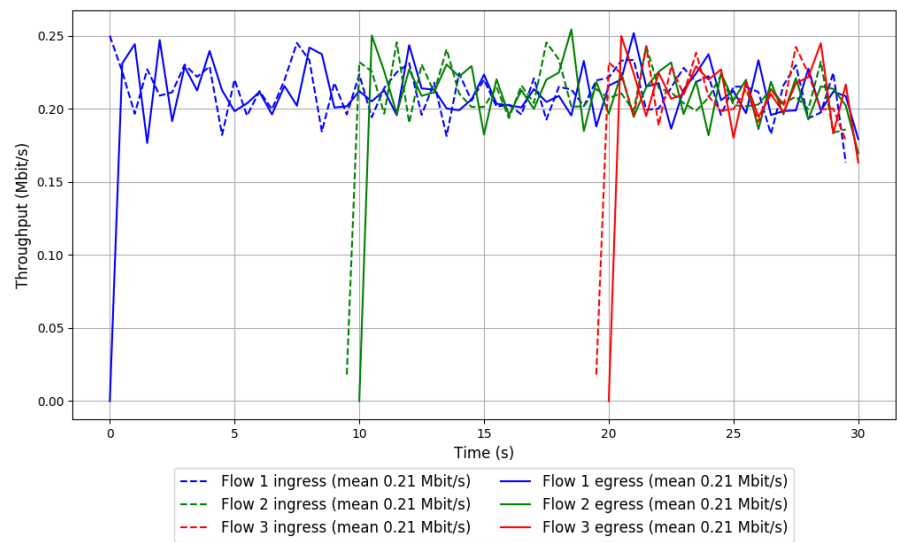
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-07-12 16:53:31
End at: 2019-07-12 16:54:01
Local clock offset: 4.004 ms
Remote clock offset: -0.838 ms


# Below is generated by plot.py at 2019-07-12 18:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 20.390 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 20.409 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 20.324 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 20.338 ms
Loss rate: 0.35%
```
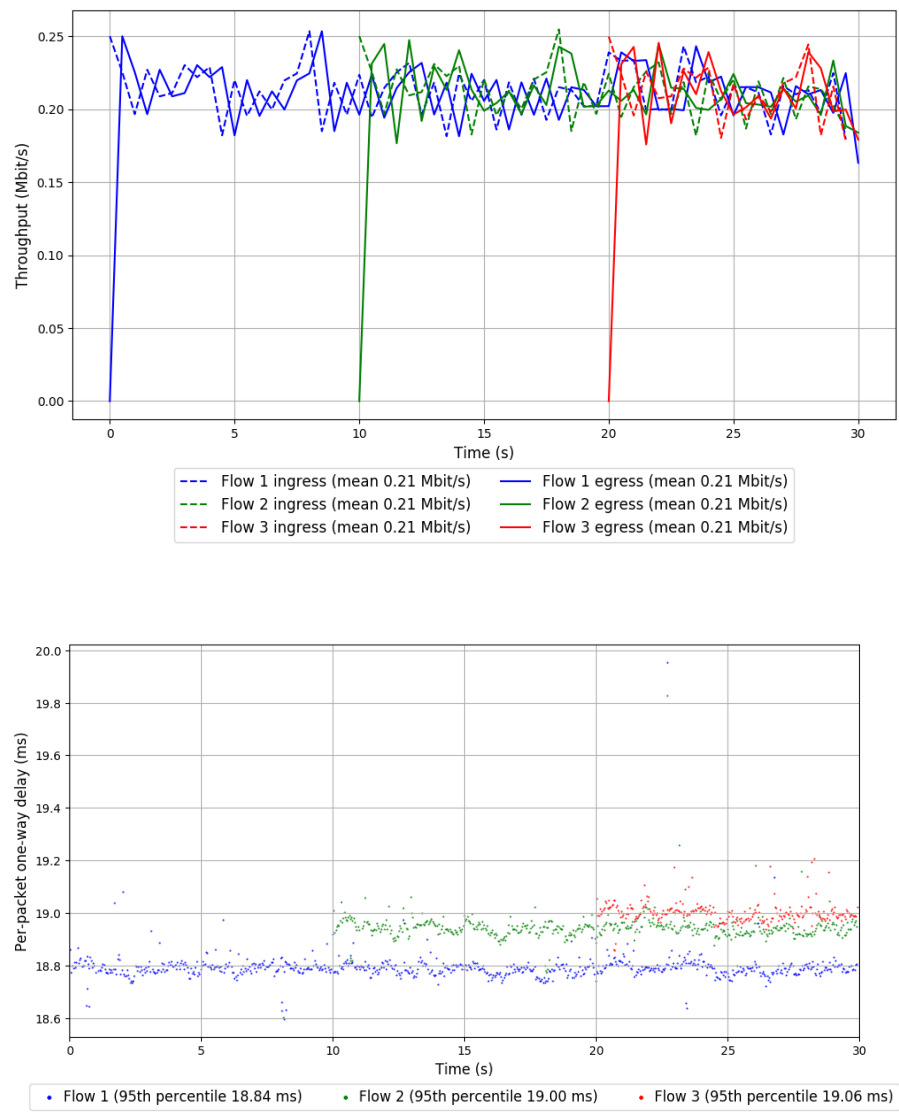
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-07-12 17:23:11
End at: 2019-07-12 17:23:41
Local clock offset: 2.762 ms
Remote clock offset: -2.572 ms


# Below is generated by plot.py at 2019-07-12 18:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 20.920 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 20.915 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 20.848 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 20.927 ms
Loss rate: 0.35%
```
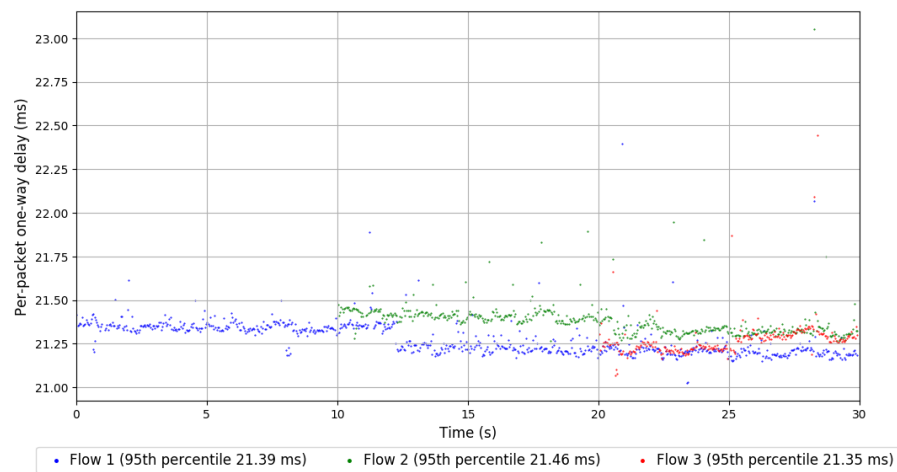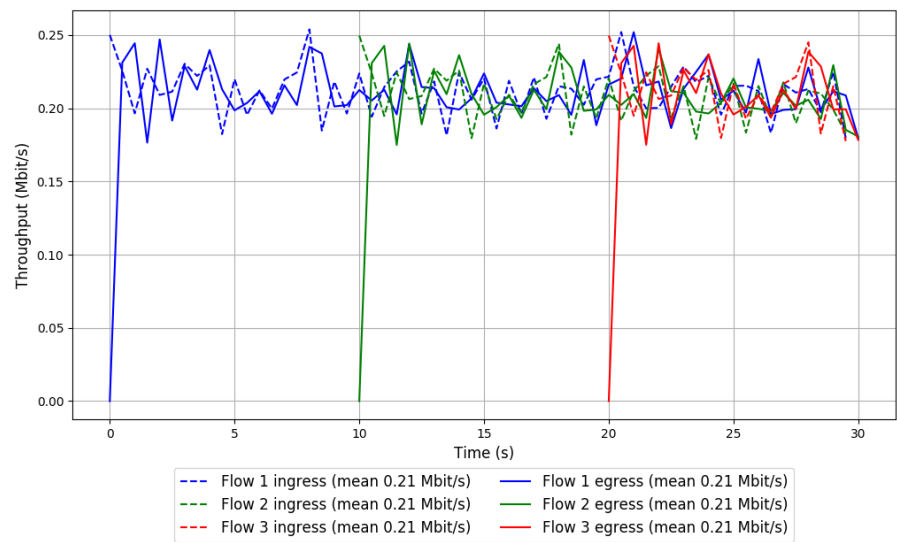
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-07-12 17:52:31
End at: 2019-07-12 17:53:01
Local clock offset: 2.321 ms
Remote clock offset: -2.593 ms


# Below is generated by plot.py at 2019-07-12 18:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 19.019 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 18.835 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 18.995 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 19.064 ms
Loss rate: 0.36%
```
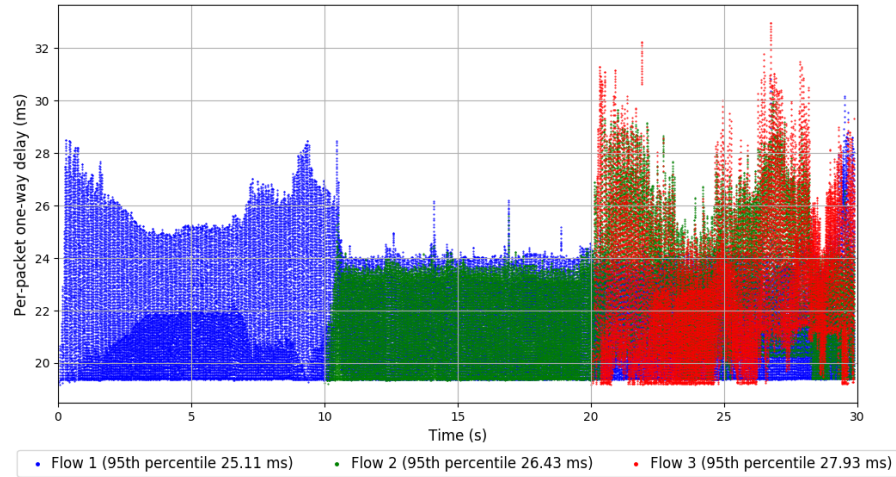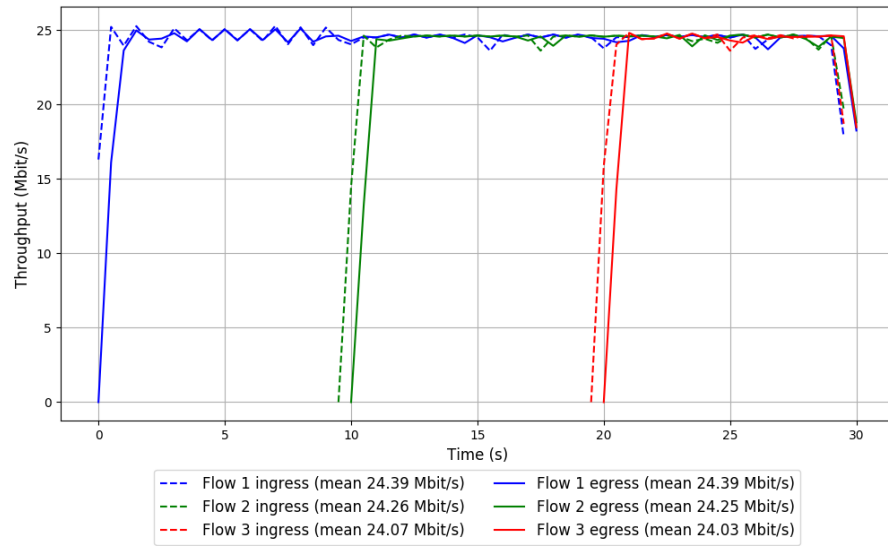
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-07-12 18:21:58
End at: 2019-07-12 18:22:28
Local clock offset: 8.742 ms
Remote clock offset: -4.548 ms


# Below is generated by plot.py at 2019-07-12 18:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 21.441 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 21.391 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 21.461 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 21.349 ms
Loss rate: 0.35%
```
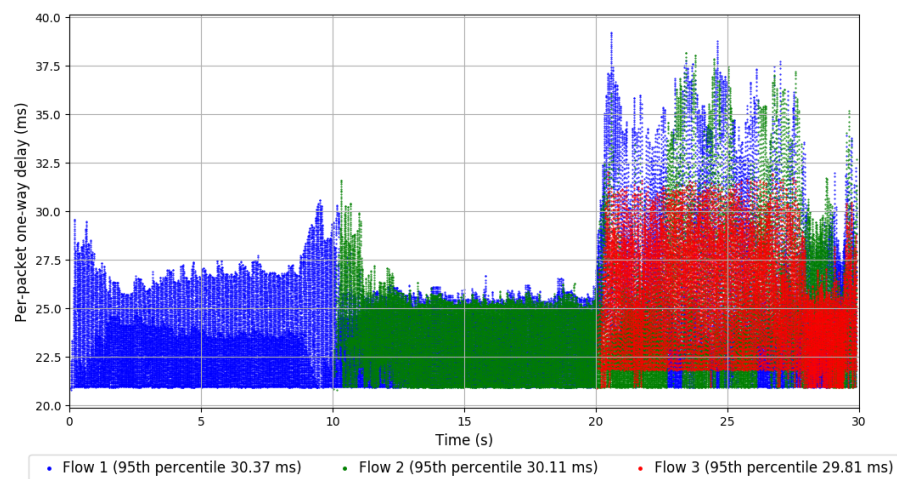
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-07-12 16:16:47
End at: 2019-07-12 16:17:17
Local clock offset: 3.56 ms
Remote clock offset: -0.273 ms


# Below is generated by plot.py at 2019-07-12 18:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.46 Mbit/s
95th percentile per-packet one-way delay: 26.220 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 25.106 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 24.25 Mbit/s
95th percentile per-packet one-way delay: 26.431 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 24.03 Mbit/s
95th percentile per-packet one-way delay: 27.927 ms
Loss rate: 0.26%
```
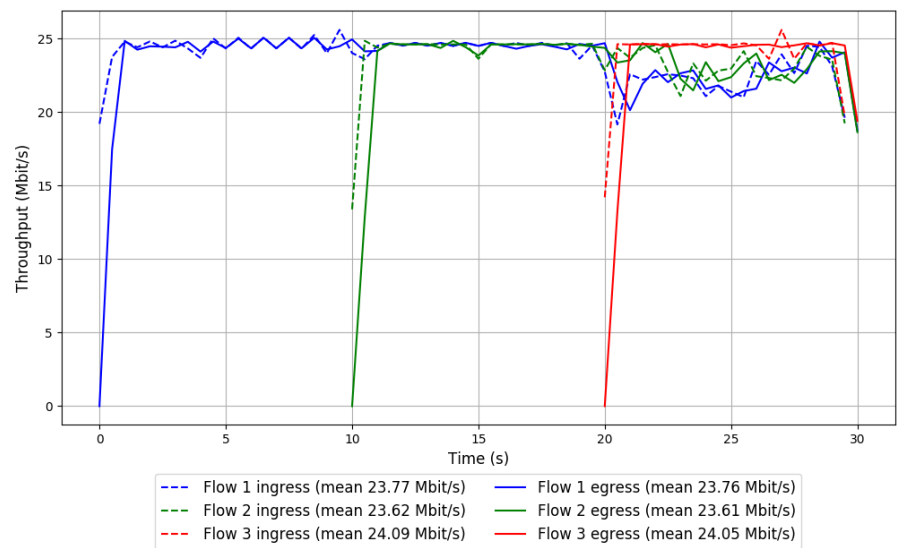
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-07-12 16:46:19
End at: 2019-07-12 16:46:49
Local clock offset: 3.755 ms
Remote clock offset: -1.598 ms


# Below is generated by plot.py at 2019-07-12 18:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.40 Mbit/s
95th percentile per-packet one-way delay: 30.085 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 23.76 Mbit/s
95th percentile per-packet one-way delay: 30.367 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 23.61 Mbit/s
95th percentile per-packet one-way delay: 30.109 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 29.810 ms
Loss rate: 0.29%
```
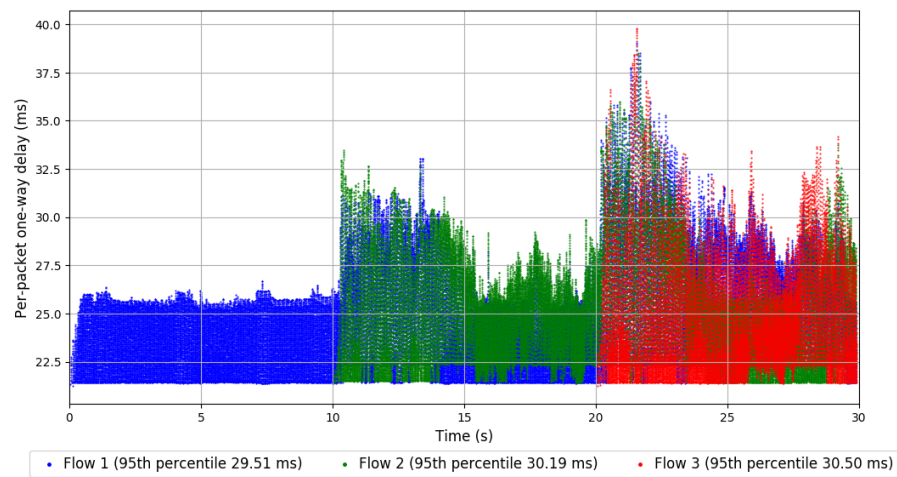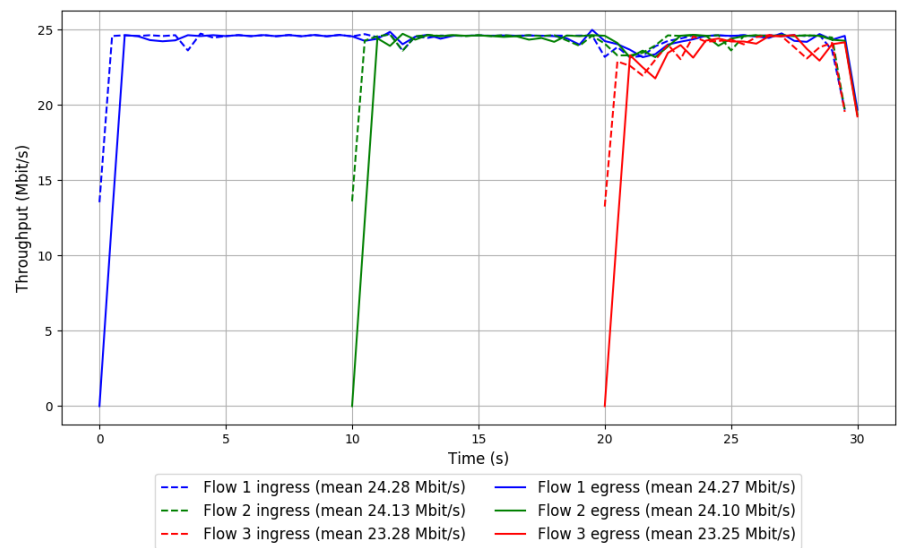
Run 2: Report of Sprout — Data Link

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```
Run 3: Statistics of Sprout

Start at: 2019-07-12 17:16:07
End at: 2019-07-12 17:16:37
Local clock offset: 2.322 ms
Remote clock offset: -3.416 ms


# Below is generated by plot.py at 2019-07-12 18:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.98 Mbit/s
95th percentile per-packet one-way delay: 29.926 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 24.27 Mbit/s
95th percentile per-packet one-way delay: 29.510 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 24.10 Mbit/s
95th percentile per-packet one-way delay: 30.192 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 23.25 Mbit/s
95th percentile per-packet one-way delay: 30.502 ms
Loss rate: 0.27%
```

Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-07-12 17:45:20
End at: 2019-07-12 17:45:50
Local clock offset: 2.921 ms
Remote clock offset: -4.843 ms


# Below is generated by plot.py at 2019-07-12 18:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.53 Mbit/s
95th percentile per-packet one-way delay: 30.295 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 24.43 Mbit/s
95th percentile per-packet one-way delay: 30.020 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 24.46 Mbit/s
95th percentile per-packet one-way delay: 30.714 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 23.76 Mbit/s
95th percentile per-packet one-way delay: 29.180 ms
Loss rate: 0.42%
```
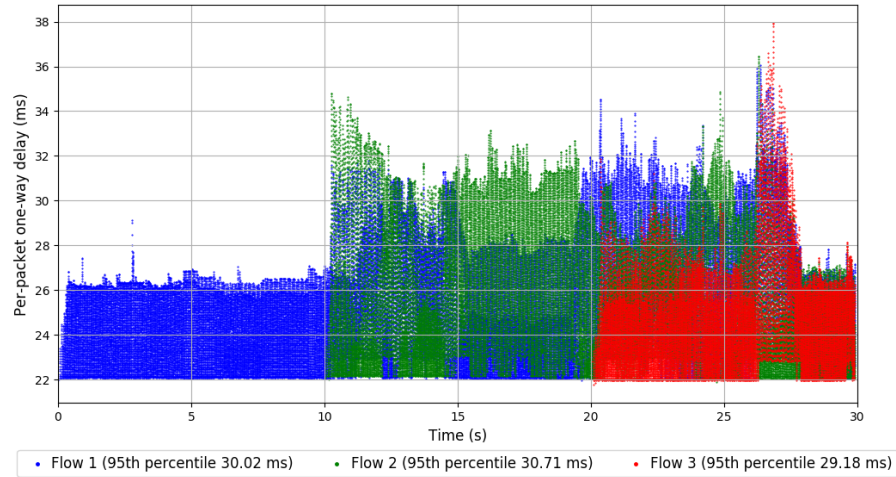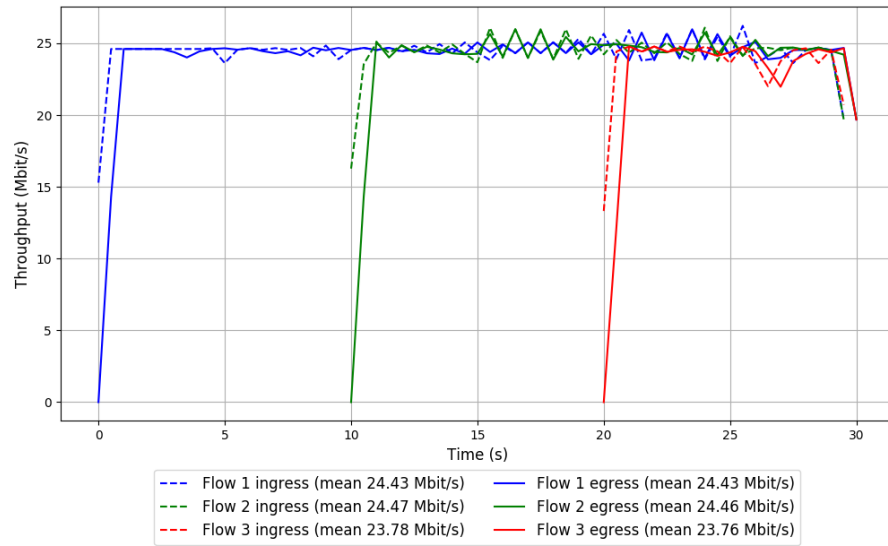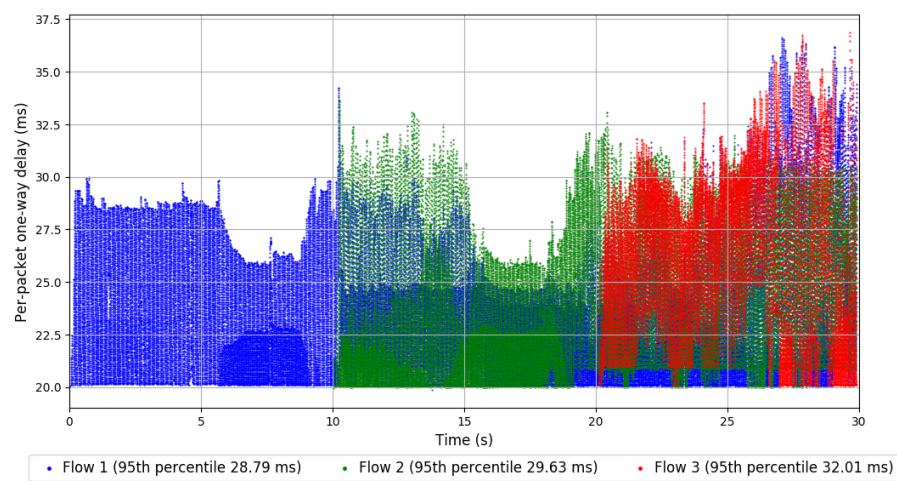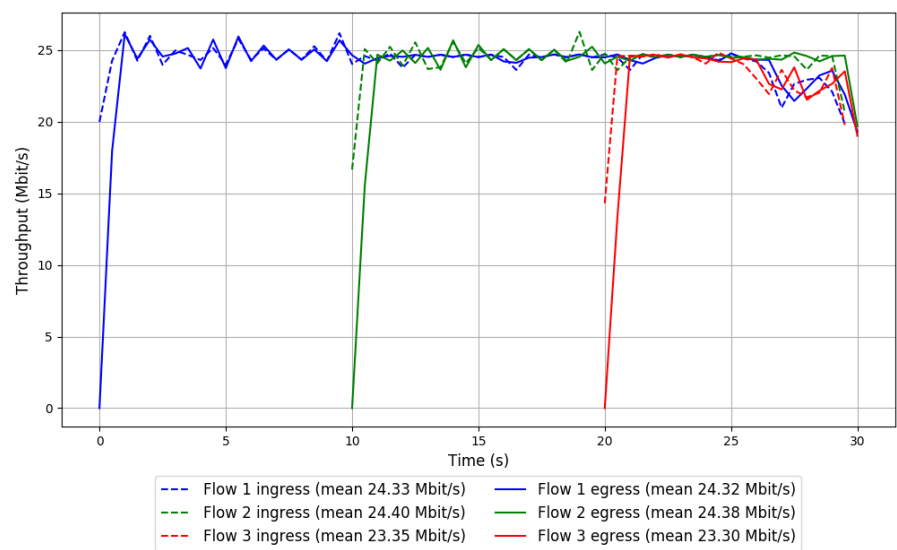
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-07-12 18:14:45
End at: 2019-07-12 18:15:15
Local clock offset: 7.89 ms
Remote clock offset: -3.354 ms


# Below is generated by plot.py at 2019-07-12 18:42:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.23 Mbit/s
95th percentile per-packet one-way delay: 30.021 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 24.32 Mbit/s
95th percentile per-packet one-way delay: 28.787 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 24.38 Mbit/s
95th percentile per-packet one-way delay: 29.626 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 23.30 Mbit/s
95th percentile per-packet one-way delay: 32.012 ms
Loss rate: 0.40%
```
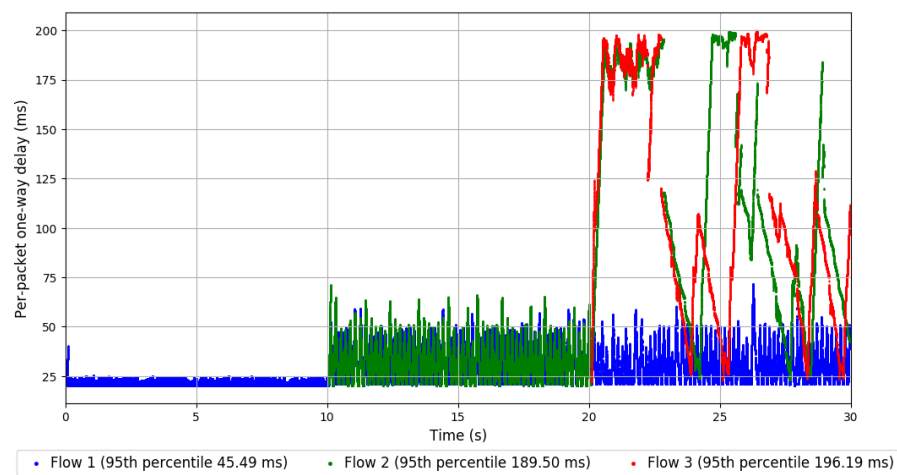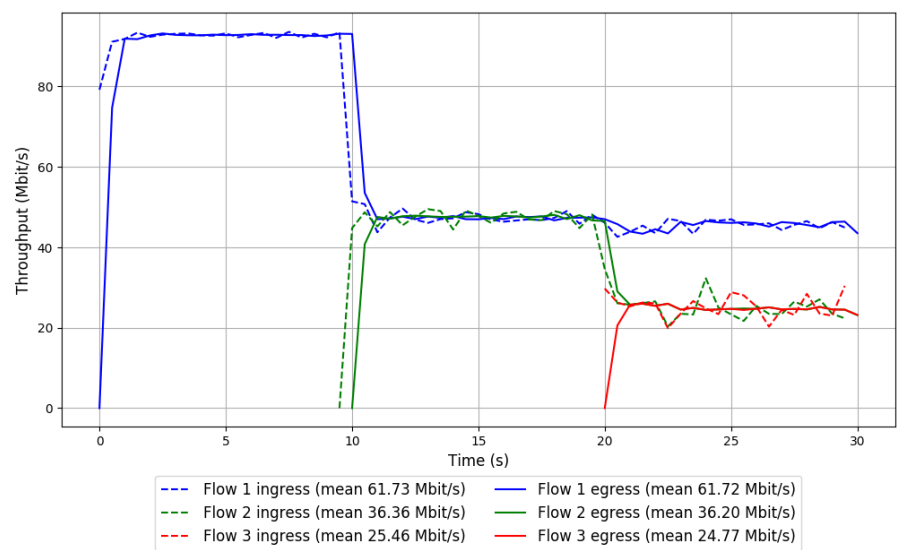
Run 5: Report of Sprout — Data Link

```
Run 1: Statistics of TaoVA-100x

Start at: 2019-07-12 16:10:17
End at: 2019-07-12 16:10:47
Local clock offset: 4.244 ms
Remote clock offset: -1.306 ms


# Below is generated by plot.py at 2019-07-12 18:43:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.06 Mbit/s
95th percentile per-packet one-way delay: 179.609 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 61.72 Mbit/s
95th percentile per-packet one-way delay: 45.488 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 36.20 Mbit/s
95th percentile per-packet one-way delay: 189.502 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 24.77 Mbit/s
95th percentile per-packet one-way delay: 196.187 ms
Loss rate: 2.98%
```

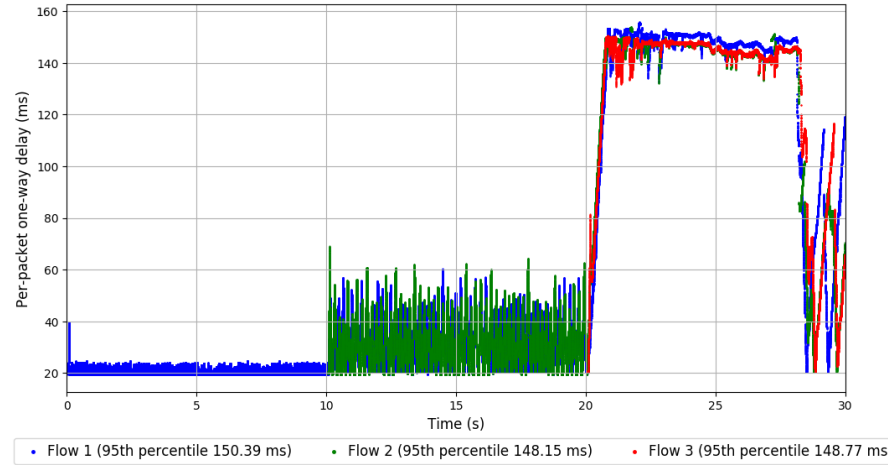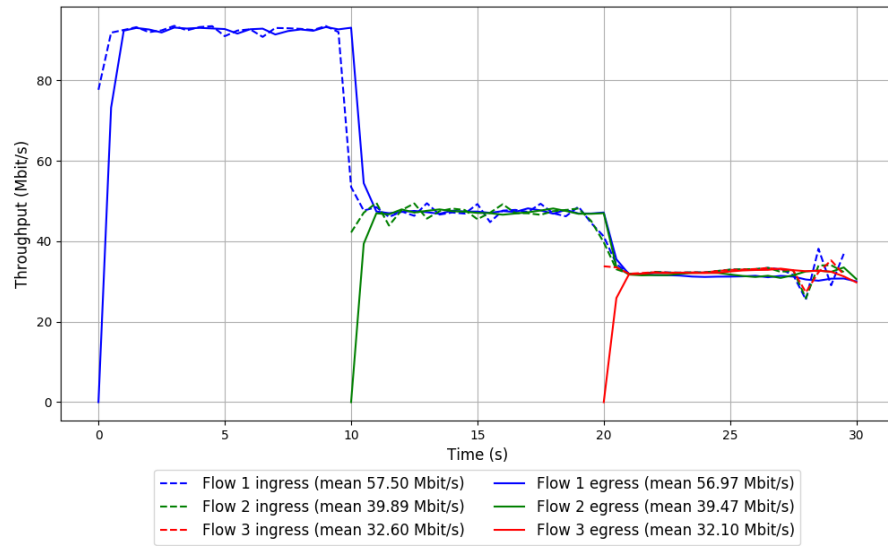Run 1: Report of TaoVA-100x — Data Link

```
Run 2: Statistics of TaoVA-100x

Start at: 2019-07-12 16:39:46
End at: 2019-07-12 16:40:16
Local clock offset: 3.191 ms
Remote clock offset: -0.618 ms


# Below is generated by plot.py at 2019-07-12 18:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.92 Mbit/s
95th percentile per-packet one-way delay: 149.246 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 56.97 Mbit/s
95th percentile per-packet one-way delay: 150.387 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 39.47 Mbit/s
95th percentile per-packet one-way delay: 148.152 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 32.10 Mbit/s
95th percentile per-packet one-way delay: 148.767 ms
Loss rate: 1.79%
```

Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 57.50 Mbit/s)   Flow 1 egress (mean 56.97 Mbit/s)
Flow 2 ingress (mean 39.89 Mbit/s)   Flow 2 egress (mean 39.47 Mbit/s)
Flow 3 ingress (mean 32.60 Mbit/s)   Flow 3 egress (mean 32.10 Mbit/s)

Flow 1 (95th percentile 150.39 ms)   Flow 2 (95th percentile 148.15 ms)   Flow 3 (95th percentile 148.77 ms)
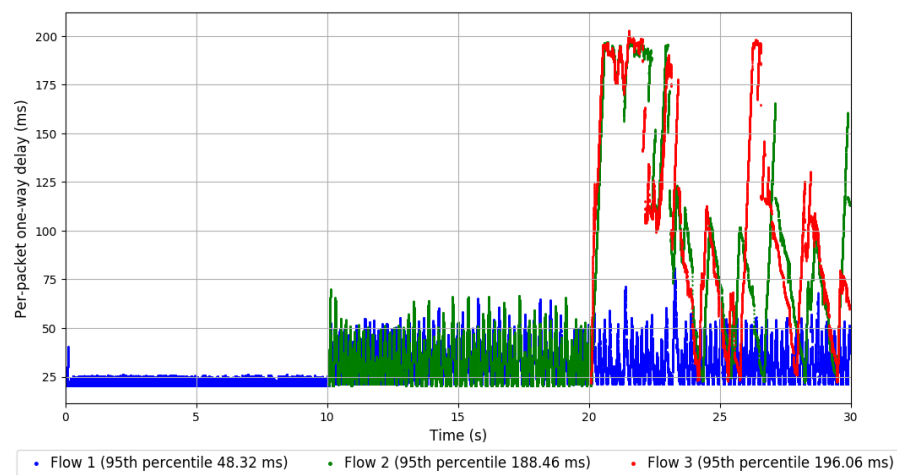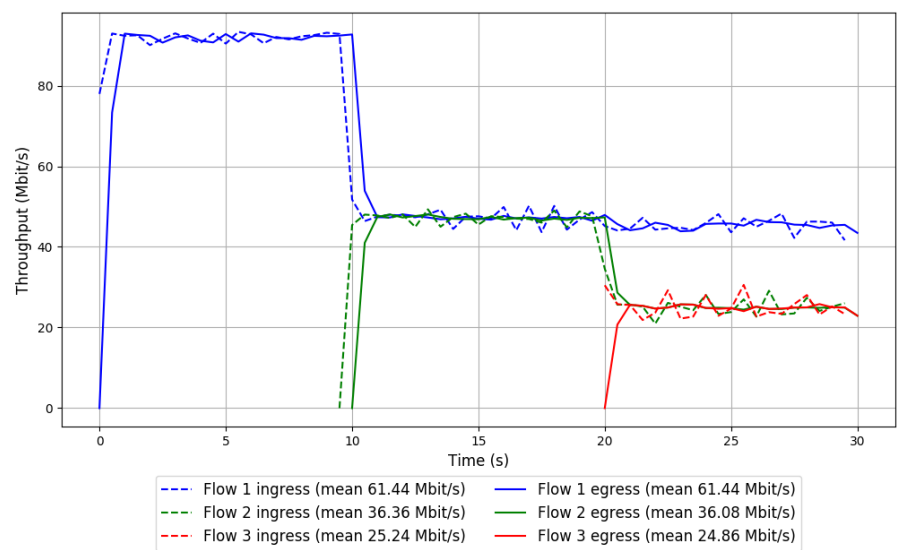
```
Run 3: Statistics of TaoVA-100x

Start at: 2019-07-12 17:09:40
End at: 2019-07-12 17:10:10
Local clock offset: 2.185 ms
Remote clock offset: -2.548 ms


# Below is generated by plot.py at 2019-07-12 18:44:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.73 Mbit/s
95th percentile per-packet one-way delay: 126.874 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 61.44 Mbit/s
95th percentile per-packet one-way delay: 48.318 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 36.08 Mbit/s
95th percentile per-packet one-way delay: 188.456 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 24.86 Mbit/s
95th percentile per-packet one-way delay: 196.058 ms
Loss rate: 1.79%
```

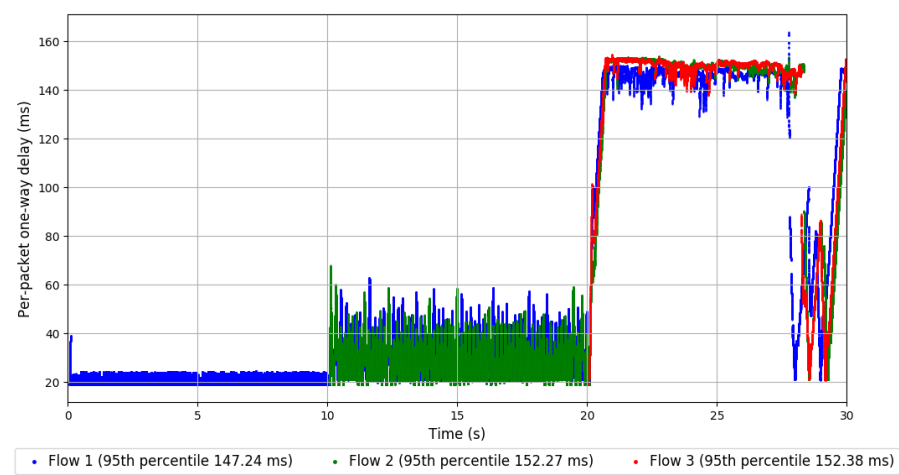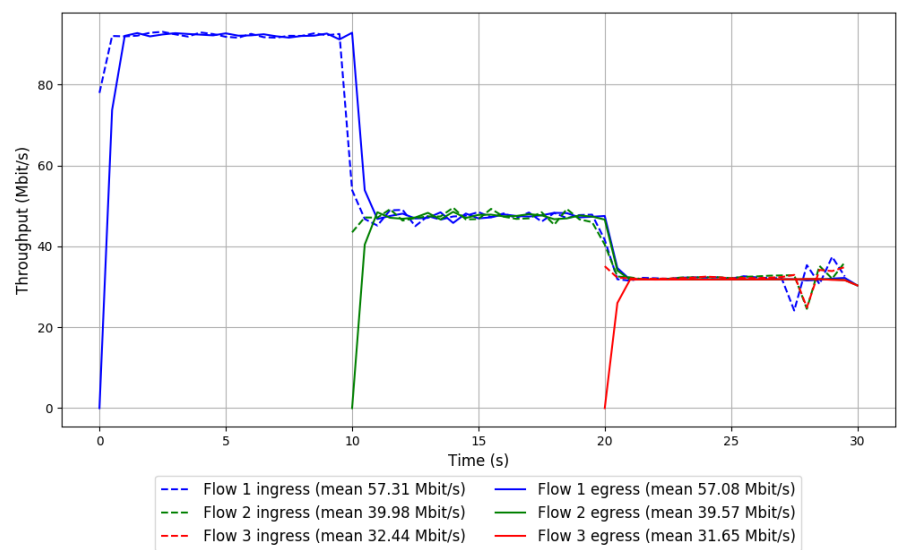Run 3: Report of TaoVA-100x — Data Link

```
Run 4: Statistics of TaoVA-100x

Start at: 2019-07-12 17:39:03
End at: 2019-07-12 17:39:33
Local clock offset: 2.268 ms
Remote clock offset: -2.201 ms


# Below is generated by plot.py at 2019-07-12 18:44:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.94 Mbit/s
95th percentile per-packet one-way delay: 151.373 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 57.08 Mbit/s
95th percentile per-packet one-way delay: 147.235 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 39.57 Mbit/s
95th percentile per-packet one-way delay: 152.274 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 31.65 Mbit/s
95th percentile per-packet one-way delay: 152.384 ms
Loss rate: 2.71%
```

Run 4: Report of TaoVA-100x — Data Link

- Flow 1 ingress (mean 57.31 Mbit/s)
- Flow 1 egress (mean 57.08 Mbit/s)
- Flow 2 ingress (mean 39.98 Mbit/s)
- Flow 2 egress (mean 39.57 Mbit/s)
- Flow 3 ingress (mean 32.44 Mbit/s)
- Flow 3 egress (mean 31.65 Mbit/s)

- Flow 1 (95th percentile 147.24 ms)
- Flow 2 (95th percentile 152.27 ms)
- Flow 3 (95th percentile 152.38 ms)

```
Run 5: Statistics of TaoVA-100x

Start at: 2019-07-12 18:08:18
End at: 2019-07-12 18:08:48
Local clock offset: 6.119 ms
Remote clock offset: -2.54 ms


# Below is generated by plot.py at 2019-07-12 18:44:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.73 Mbit/s
95th percentile per-packet one-way delay: 153.333 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 61.34 Mbit/s
95th percentile per-packet one-way delay: 46.267 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 36.21 Mbit/s
95th percentile per-packet one-way delay: 197.004 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 24.94 Mbit/s
95th percentile per-packet one-way delay: 194.220 ms
Loss rate: 1.71%
```
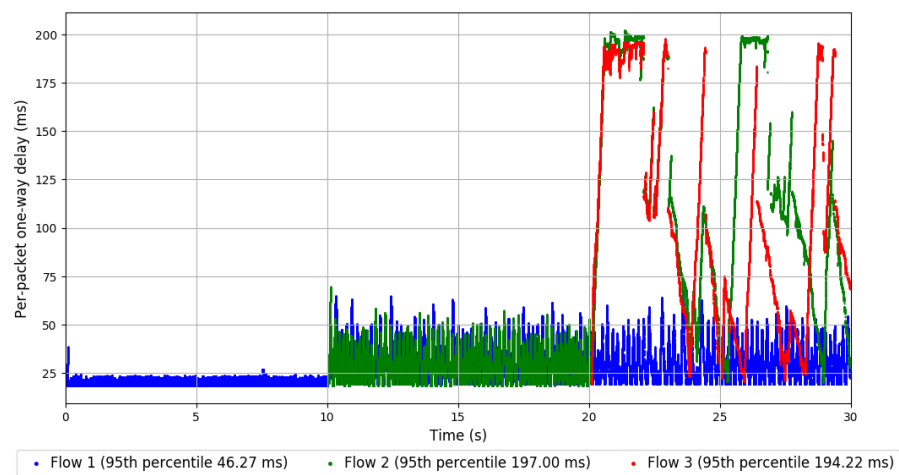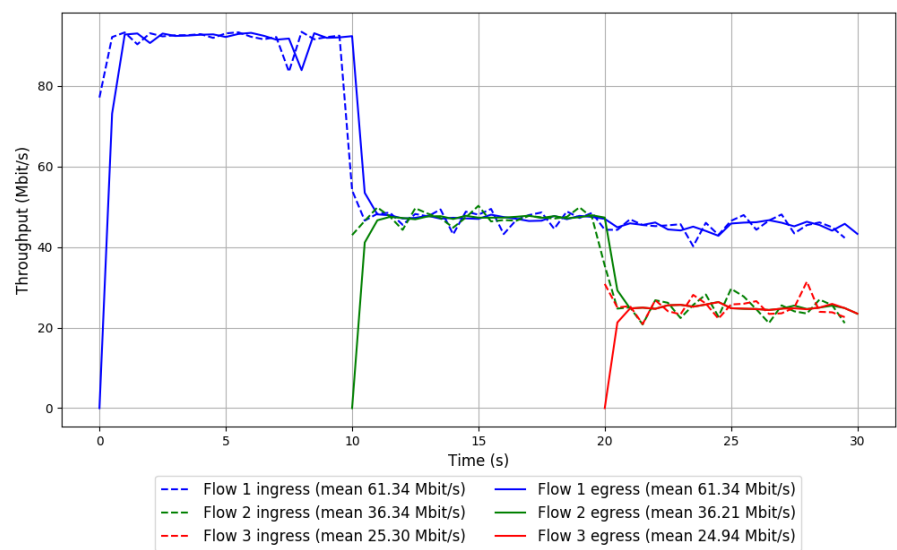
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 61.34 Mbit/s) --- Flow 1 egress (mean 61.34 Mbit/s)
Flow 2 ingress (mean 36.34 Mbit/s) --- Flow 2 egress (mean 36.21 Mbit/s)
Flow 3 ingress (mean 25.30 Mbit/s) --- Flow 3 egress (mean 24.94 Mbit/s)

Flow 1 (95th percentile 46.27 ms) • Flow 2 (95th percentile 197.00 ms) • Flow 3 (95th percentile 194.22 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-07-12 16:21:33
End at: 2019-07-12 16:22:03
Local clock offset: 3.175 ms
Remote clock offset: -1.223 ms


# Below is generated by plot.py at 2019-07-12 18:44:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.39 Mbit/s
95th percentile per-packet one-way delay: 22.577 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 55.70 Mbit/s
95th percentile per-packet one-way delay: 22.432 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 39.26 Mbit/s
95th percentile per-packet one-way delay: 22.457 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 22.868 ms
Loss rate: 0.25%
```
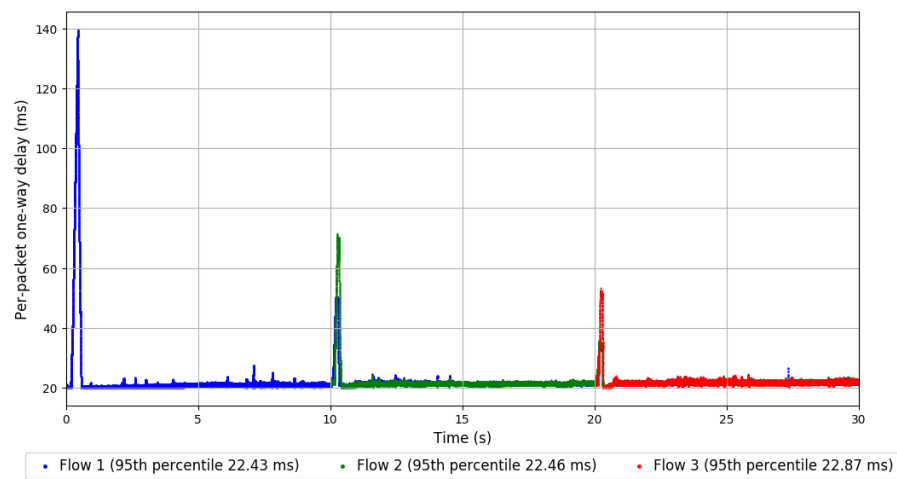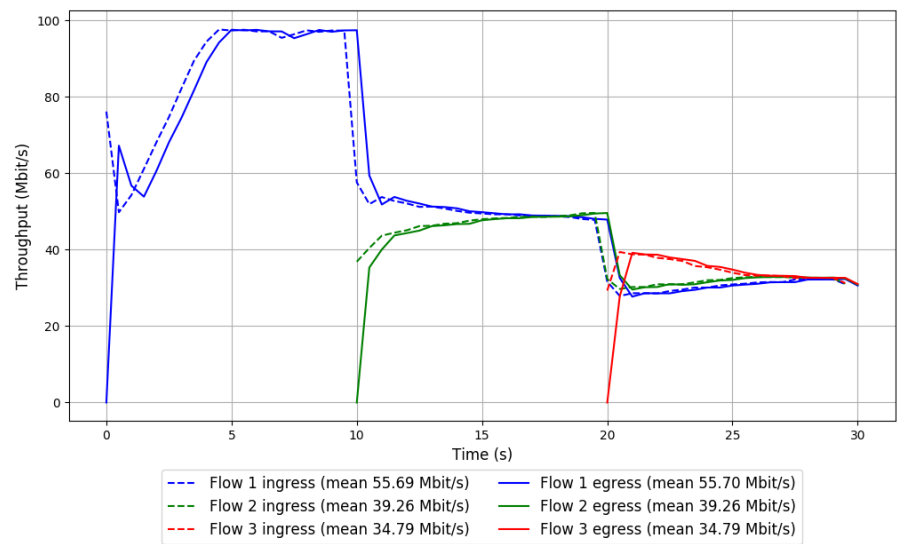
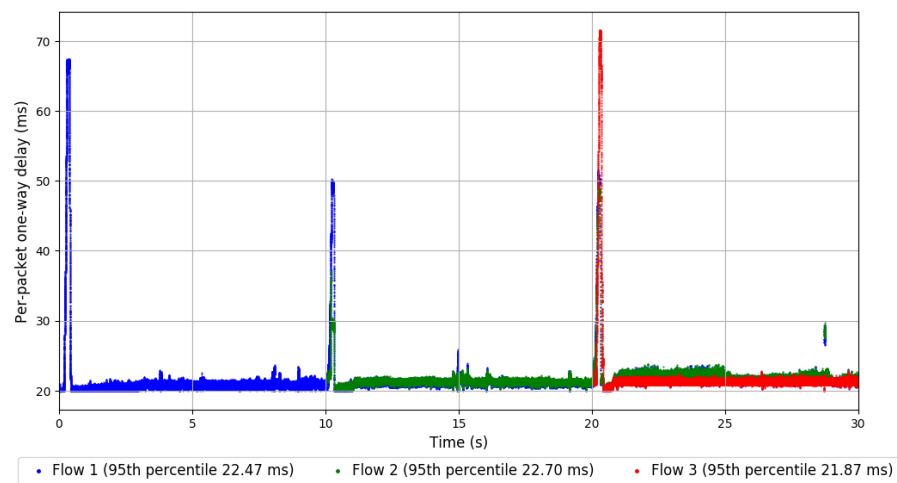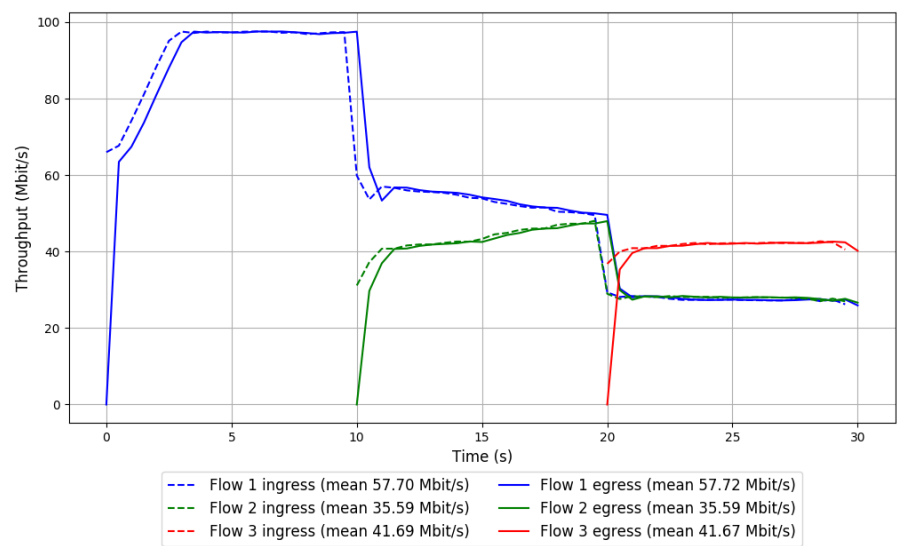Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-07-12 16:51:11
End at: 2019-07-12 16:51:41
Local clock offset: 3.389 ms
Remote clock offset: -1.259 ms


# Below is generated by plot.py at 2019-07-12 18:44:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.26 Mbit/s
95th percentile per-packet one-way delay: 22.536 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 57.72 Mbit/s
95th percentile per-packet one-way delay: 22.467 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 35.59 Mbit/s
95th percentile per-packet one-way delay: 22.701 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 41.67 Mbit/s
95th percentile per-packet one-way delay: 21.868 ms
Loss rate: 0.27%
```

Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 57.70 Mbit/s) — Flow 1 egress (mean 57.72 Mbit/s)
Flow 2 ingress (mean 35.59 Mbit/s) — Flow 2 egress (mean 35.59 Mbit/s)
Flow 3 ingress (mean 41.69 Mbit/s) — Flow 3 egress (mean 41.67 Mbit/s)

Flow 1 (95th percentile 22.47 ms)   Flow 2 (95th percentile 22.70 ms)   Flow 3 (95th percentile 21.87 ms)
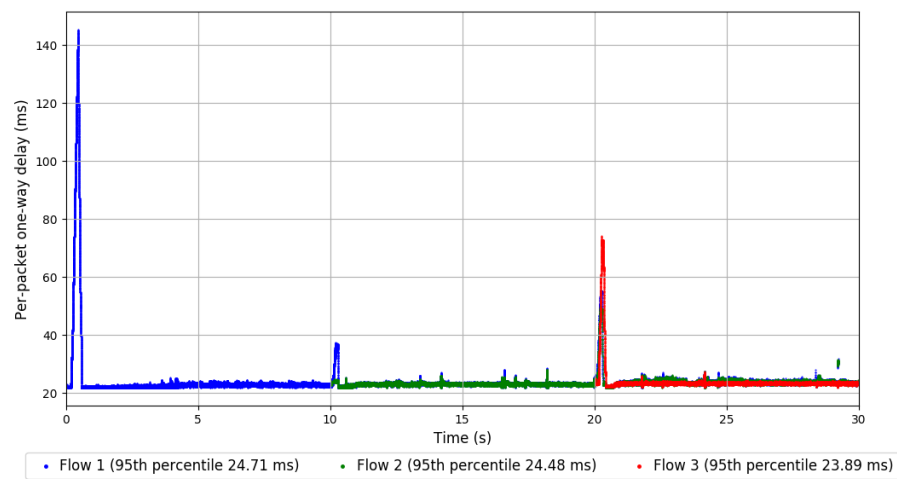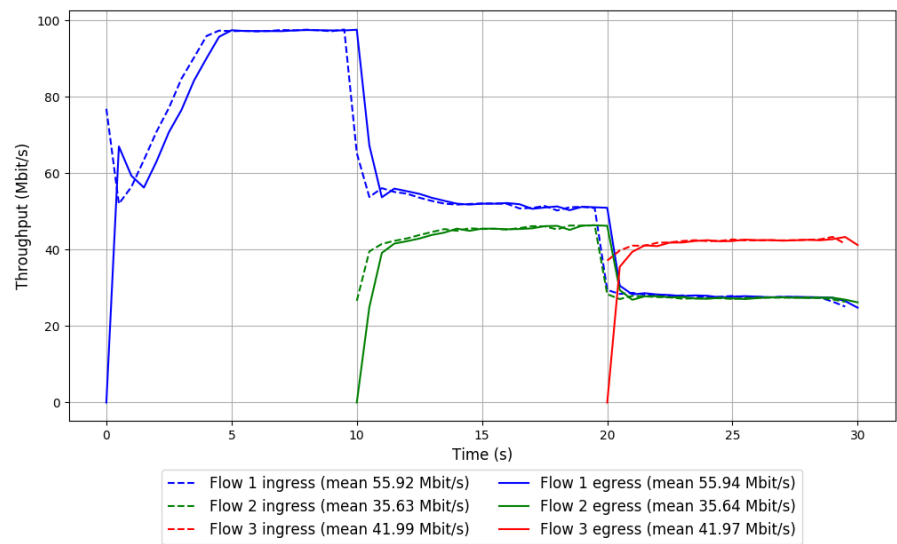
```
Run 3: Statistics of TCP Vegas

Start at: 2019-07-12 17:20:52
End at: 2019-07-12 17:21:22
Local clock offset: 0.198 ms
Remote clock offset: -6.221 ms


# Below is generated by plot.py at 2019-07-12 18:44:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.60 Mbit/s
95th percentile per-packet one-way delay: 24.527 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 55.94 Mbit/s
95th percentile per-packet one-way delay: 24.710 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 35.64 Mbit/s
95th percentile per-packet one-way delay: 24.478 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 41.97 Mbit/s
95th percentile per-packet one-way delay: 23.894 ms
Loss rate: 0.29%
```

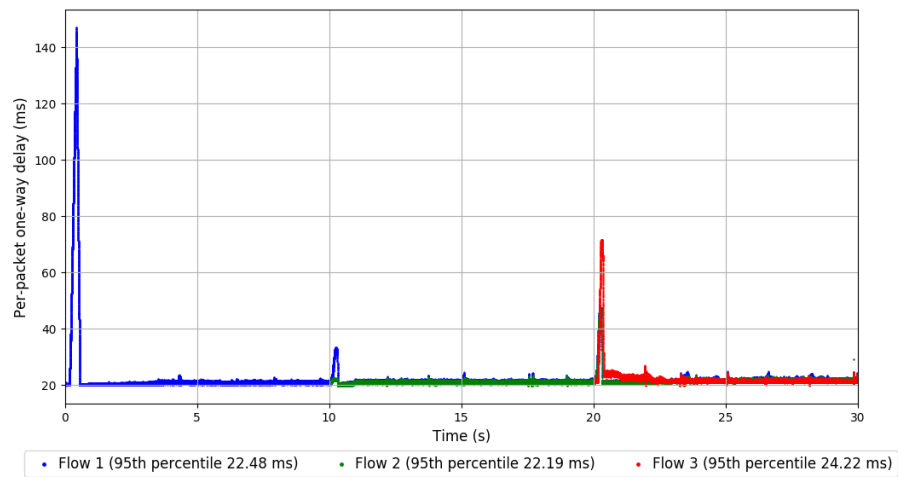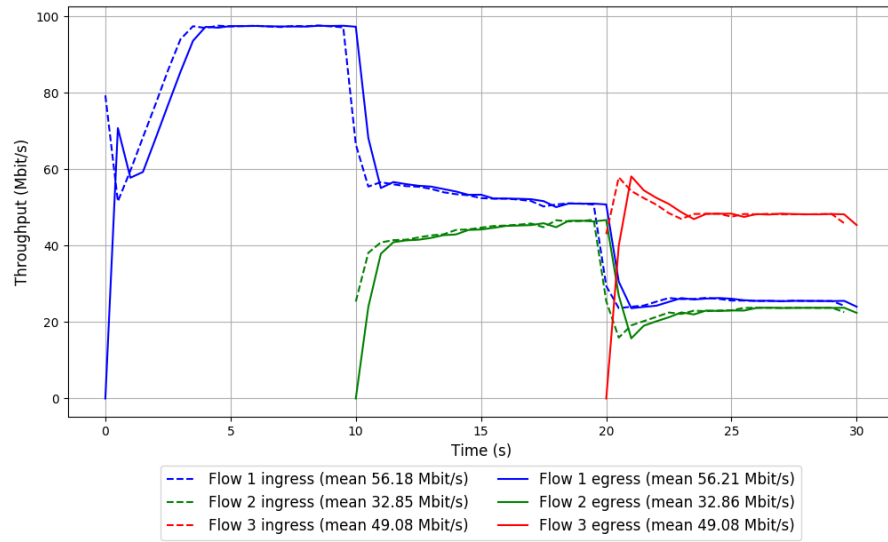# Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-07-12 17:50:10
End at: 2019-07-12 17:50:40
Local clock offset: 2.217 ms
Remote clock offset: -3.712 ms


# Below is generated by plot.py at 2019-07-12 18:44:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.37 Mbit/s
95th percentile per-packet one-way delay: 23.087 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 56.21 Mbit/s
95th percentile per-packet one-way delay: 22.480 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 32.86 Mbit/s
95th percentile per-packet one-way delay: 22.194 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 49.08 Mbit/s
95th percentile per-packet one-way delay: 24.224 ms
Loss rate: 0.27%
```

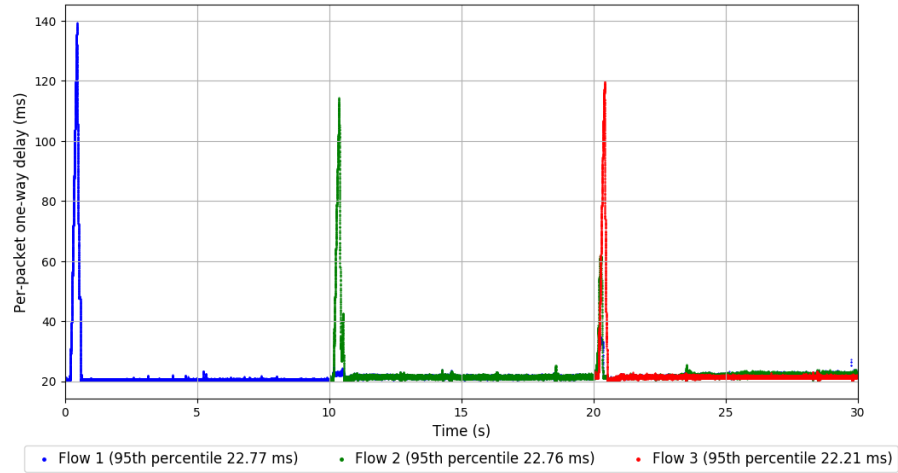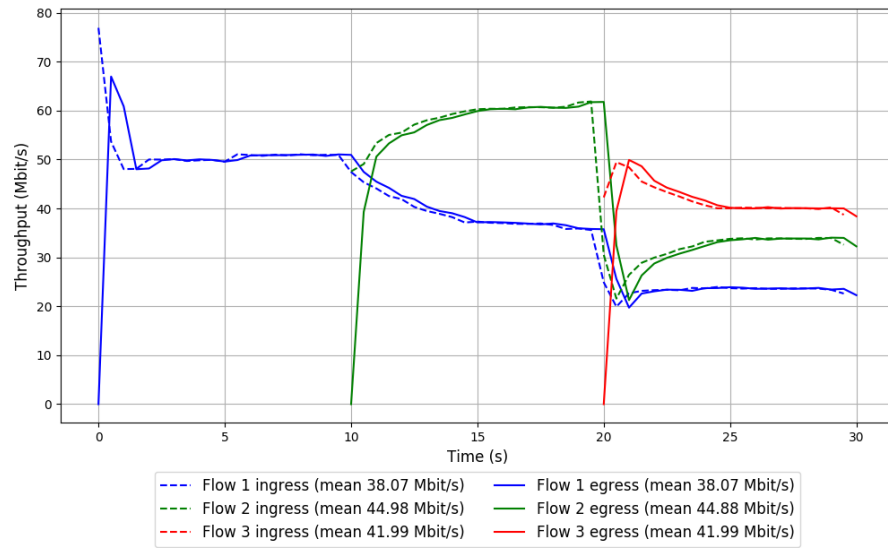## Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-07-12 18:19:38
End at: 2019-07-12 18:20:08
Local clock offset: 9.459 ms
Remote clock offset: -2.518 ms


# Below is generated by plot.py at 2019-07-12 18:44:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.90 Mbit/s
95th percentile per-packet one-way delay: 22.747 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 38.07 Mbit/s
95th percentile per-packet one-way delay: 22.768 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 44.88 Mbit/s
95th percentile per-packet one-way delay: 22.758 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 41.99 Mbit/s
95th percentile per-packet one-way delay: 22.206 ms
Loss rate: 0.27%
```

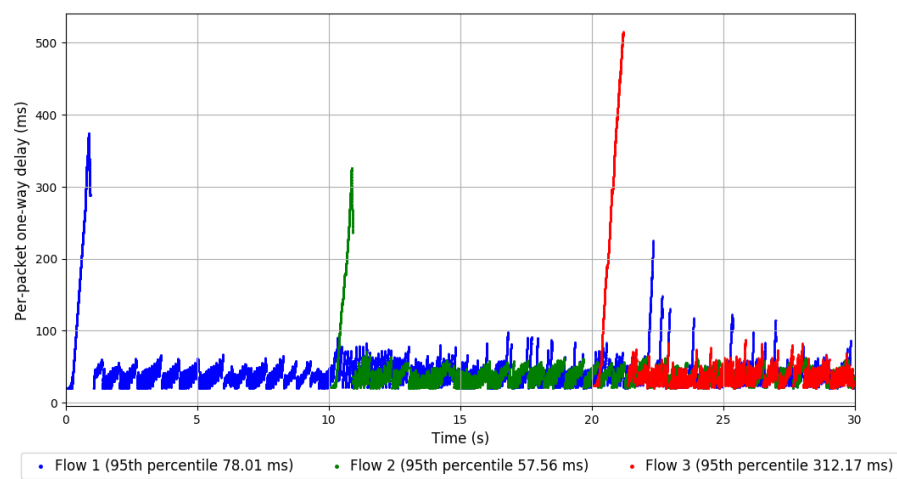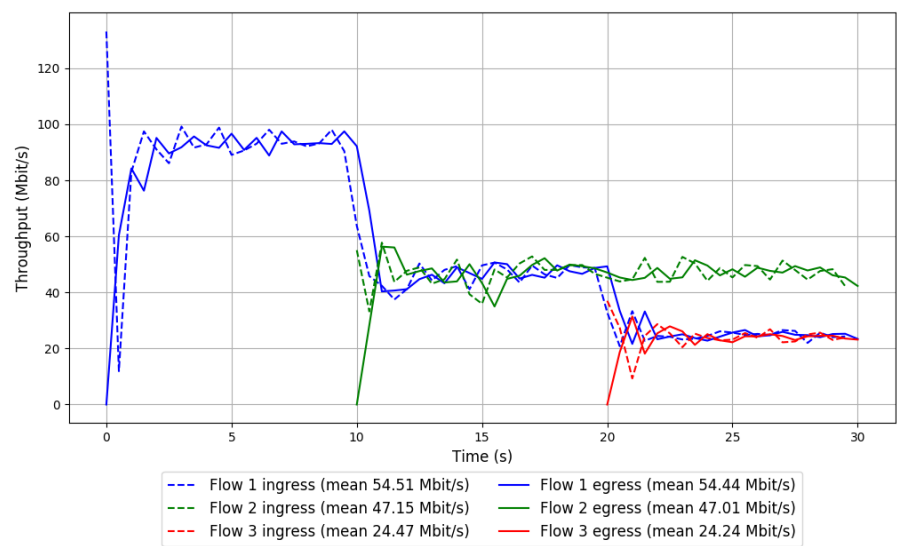Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-07-12 16:11:36
End at: 2019-07-12 16:12:06
Local clock offset: 4.493 ms
Remote clock offset: -0.912 ms


# Below is generated by plot.py at 2019-07-12 18:44:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 77.630 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 54.44 Mbit/s
95th percentile per-packet one-way delay: 78.007 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 47.01 Mbit/s
95th percentile per-packet one-way delay: 57.558 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 24.24 Mbit/s
95th percentile per-packet one-way delay: 312.171 ms
Loss rate: 1.17%
```

Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 54.51 Mbit/s) --- Flow 1 egress (mean 54.44 Mbit/s)
Flow 2 ingress (mean 47.15 Mbit/s) --- Flow 2 egress (mean 47.01 Mbit/s)
Flow 3 ingress (mean 24.47 Mbit/s) --- Flow 3 egress (mean 24.24 Mbit/s)

Flow 1 (95th percentile 78.01 ms) • Flow 2 (95th percentile 57.56 ms) • Flow 3 (95th percentile 312.17 ms)
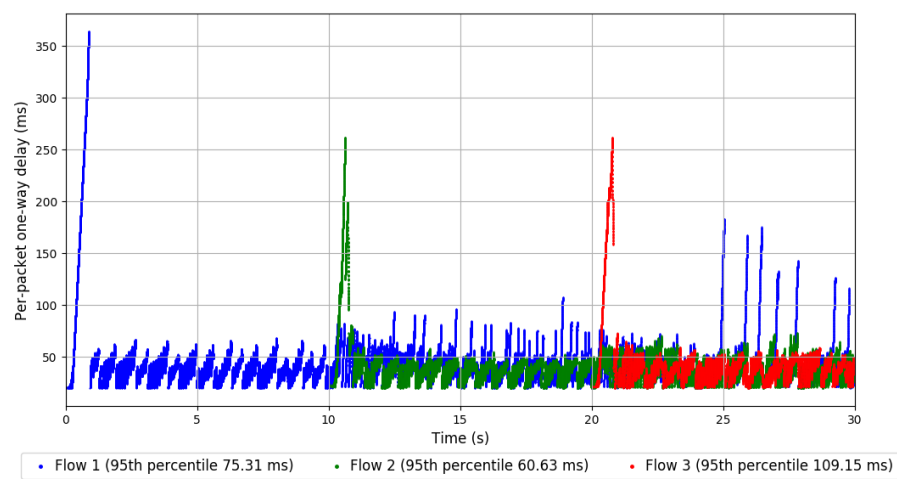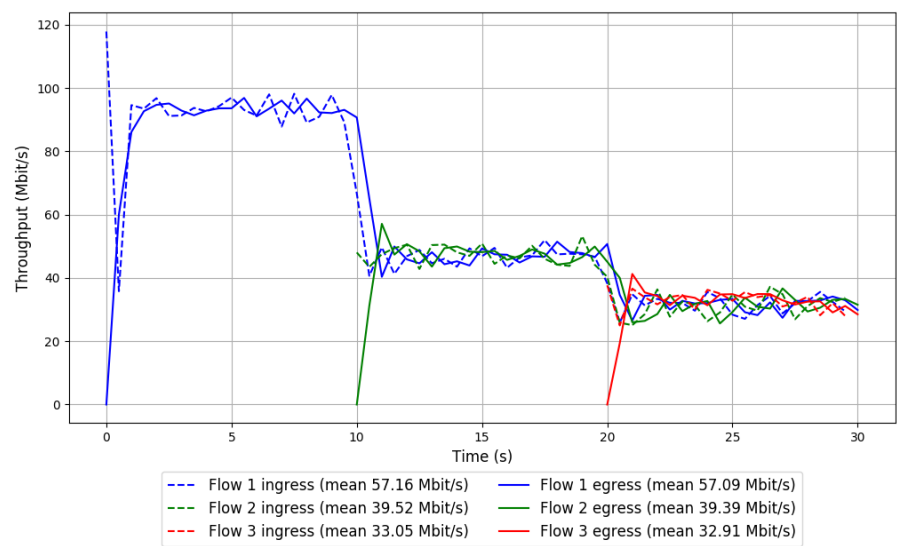
```
Run 2: Statistics of Verus

Start at: 2019-07-12 16:41:04
End at: 2019-07-12 16:41:34
Local clock offset: 2.635 ms
Remote clock offset: -1.653 ms


# Below is generated by plot.py at 2019-07-12 18:44:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.21 Mbit/s
95th percentile per-packet one-way delay: 71.731 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 57.09 Mbit/s
95th percentile per-packet one-way delay: 75.306 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 39.39 Mbit/s
95th percentile per-packet one-way delay: 60.633 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 32.91 Mbit/s
95th percentile per-packet one-way delay: 109.148 ms
Loss rate: 0.65%
```
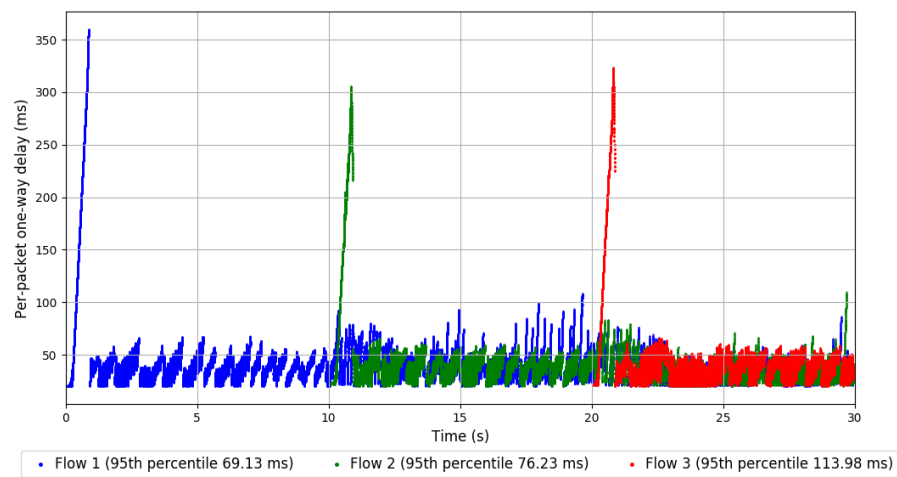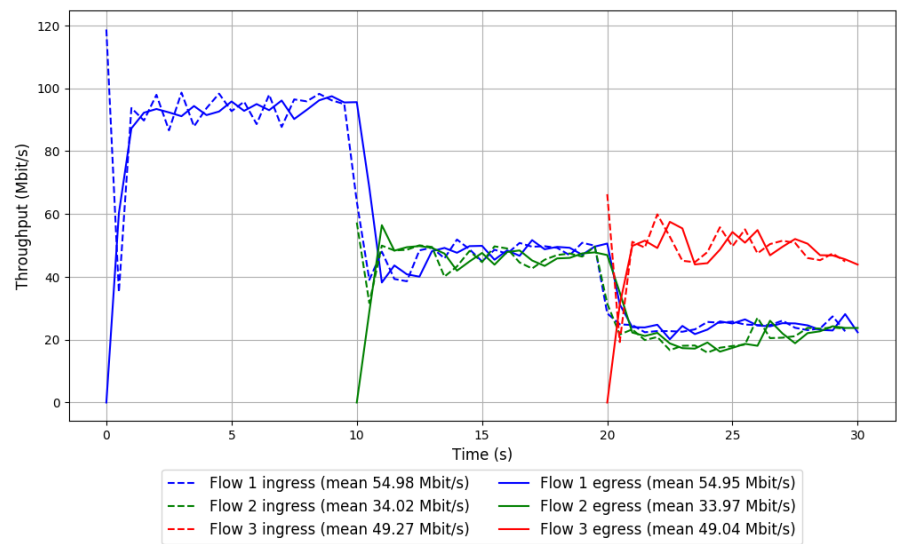
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-07-12 17:10:58
End at: 2019-07-12 17:11:28
Local clock offset: 2.726 ms
Remote clock offset: -2.088 ms


# Below is generated by plot.py at 2019-07-12 18:45:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.81 Mbit/s
95th percentile per-packet one-way delay: 71.436 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 54.95 Mbit/s
95th percentile per-packet one-way delay: 69.134 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 33.97 Mbit/s
95th percentile per-packet one-way delay: 76.231 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 49.04 Mbit/s
95th percentile per-packet one-way delay: 113.981 ms
Loss rate: 0.70%
```

Run 3: Report of Verus — Data Link

- - - - Flow 1 ingress (mean 54.98 Mbit/s) ——— Flow 1 egress (mean 54.95 Mbit/s)
- - - - Flow 2 ingress (mean 34.02 Mbit/s) ——— Flow 2 egress (mean 33.97 Mbit/s)
- - - - Flow 3 ingress (mean 49.27 Mbit/s) ——— Flow 3 egress (mean 49.04 Mbit/s)

- Flow 1 (95th percentile 69.13 ms)   • Flow 2 (95th percentile 76.23 ms)   • Flow 3 (95th percentile 113.98 ms)
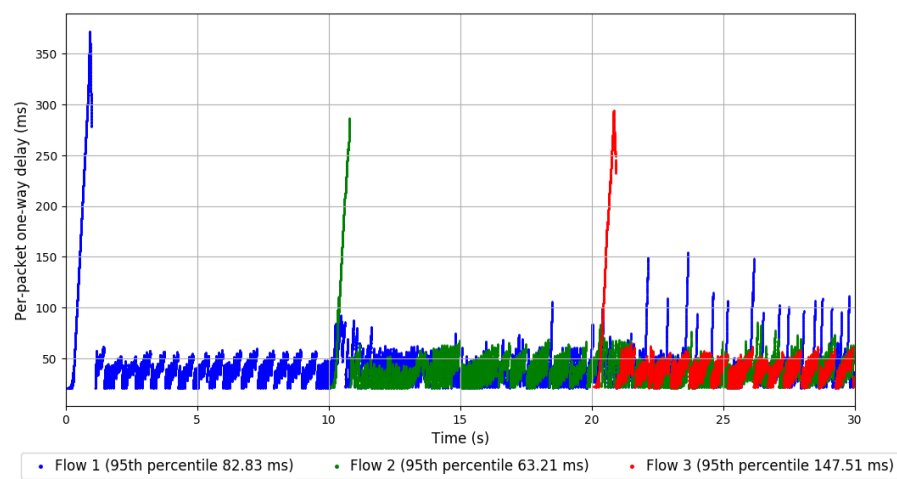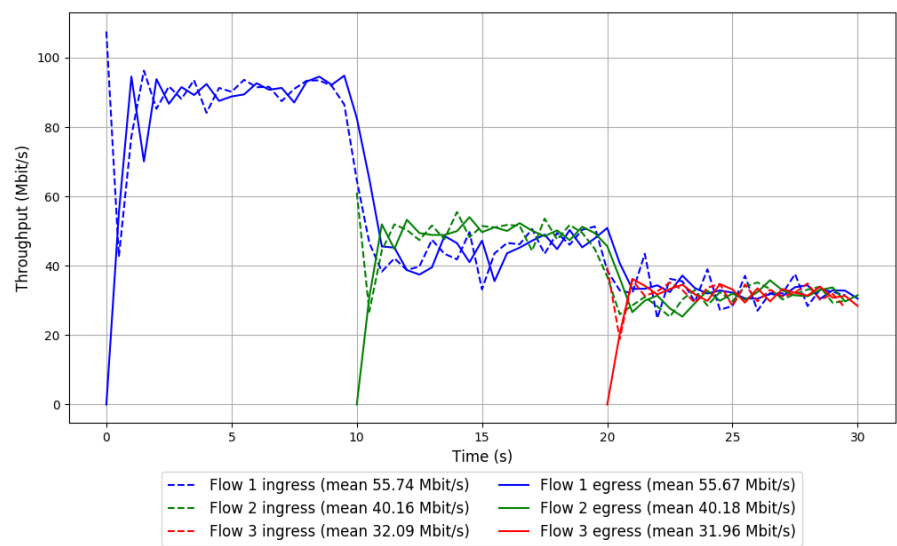
220

```
Run 4: Statistics of Verus

Start at: 2019-07-12 17:40:20
End at: 2019-07-12 17:40:50
Local clock offset: 3.017 ms
Remote clock offset: -3.111 ms


# Below is generated by plot.py at 2019-07-12 18:45:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.00 Mbit/s
95th percentile per-packet one-way delay: 78.415 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 55.67 Mbit/s
95th percentile per-packet one-way delay: 82.826 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 40.18 Mbit/s
95th percentile per-packet one-way delay: 63.206 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.96 Mbit/s
95th percentile per-packet one-way delay: 147.507 ms
Loss rate: 0.67%
```

Run 4: Report of Verus — Data Link

Flow 1 ingress (mean 55.74 Mbit/s) --- Flow 1 egress (mean 55.67 Mbit/s)
Flow 2 ingress (mean 40.16 Mbit/s) --- Flow 2 egress (mean 40.18 Mbit/s)
Flow 3 ingress (mean 32.09 Mbit/s) --- Flow 3 egress (mean 31.96 Mbit/s)

Flow 1 (95th percentile 82.83 ms)   Flow 2 (95th percentile 63.21 ms)   Flow 3 (95th percentile 147.51 ms)
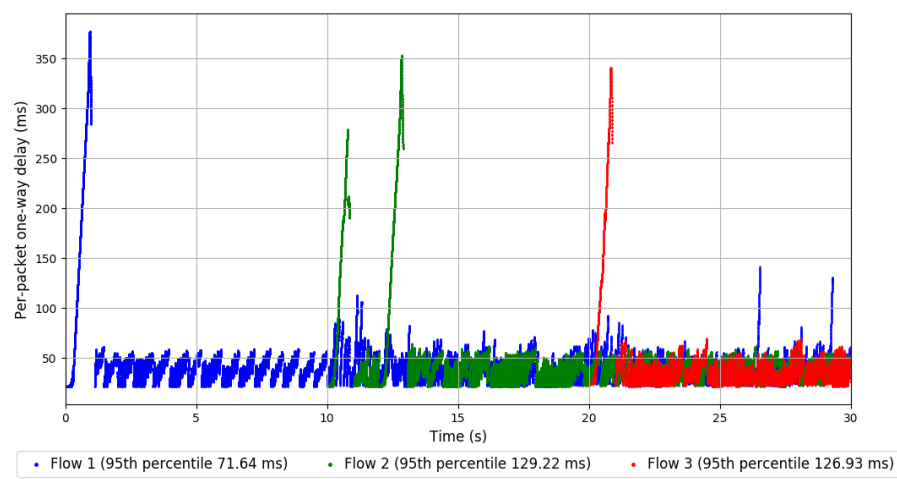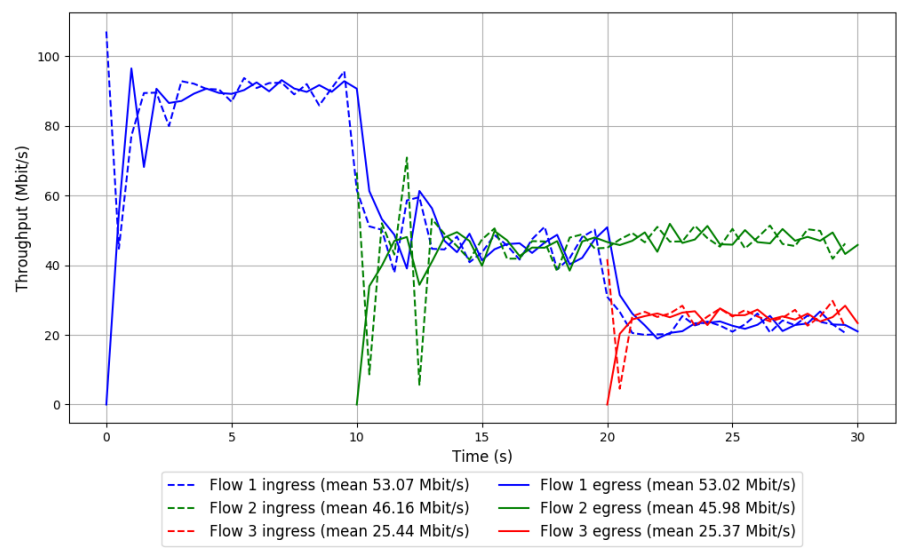
```
Run 5: Statistics of Verus

Start at: 2019-07-12 18:09:40
End at: 2019-07-12 18:10:10
Local clock offset: 7.13 ms
Remote clock offset: -4.357 ms


# Below is generated by plot.py at 2019-07-12 18:45:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.05 Mbit/s
95th percentile per-packet one-way delay: 84.133 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 53.02 Mbit/s
95th percentile per-packet one-way delay: 71.639 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 45.98 Mbit/s
95th percentile per-packet one-way delay: 129.222 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 25.37 Mbit/s
95th percentile per-packet one-way delay: 126.930 ms
Loss rate: 0.48%
```

Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 53.07 Mbit/s) --- Flow 1 egress (mean 53.02 Mbit/s)
Flow 2 ingress (mean 46.16 Mbit/s) --- Flow 2 egress (mean 45.98 Mbit/s)
Flow 3 ingress (mean 25.44 Mbit/s) --- Flow 3 egress (mean 25.37 Mbit/s)

Flow 1 (95th percentile 71.64 ms)   Flow 2 (95th percentile 129.22 ms)   Flow 3 (95th percentile 126.93 ms)
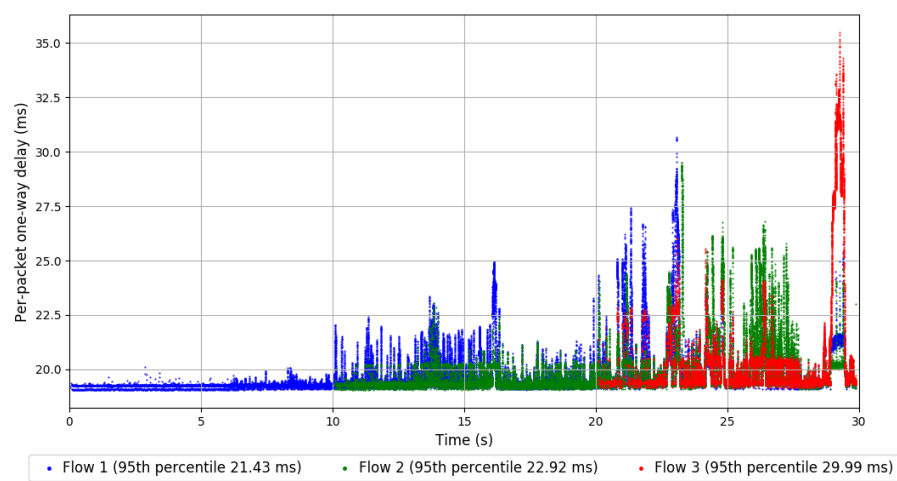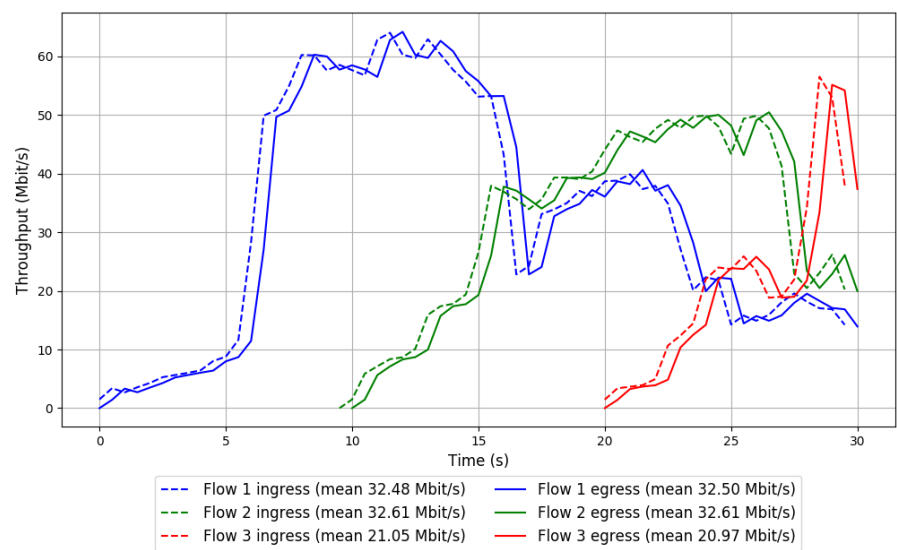
224

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-07-12 16:14:14
End at: 2019-07-12 16:14:44
Local clock offset: 3.442 ms
Remote clock offset: -0.523 ms


# Below is generated by plot.py at 2019-07-12 18:45:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.09 Mbit/s
95th percentile per-packet one-way delay: 22.723 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 32.50 Mbit/s
95th percentile per-packet one-way delay: 21.429 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 32.61 Mbit/s
95th percentile per-packet one-way delay: 22.919 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 20.97 Mbit/s
95th percentile per-packet one-way delay: 29.986 ms
Loss rate: 0.63%
```
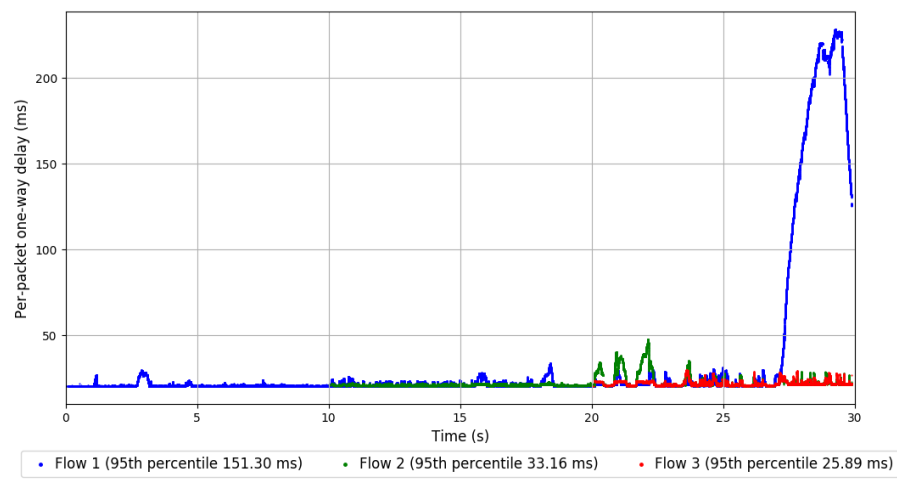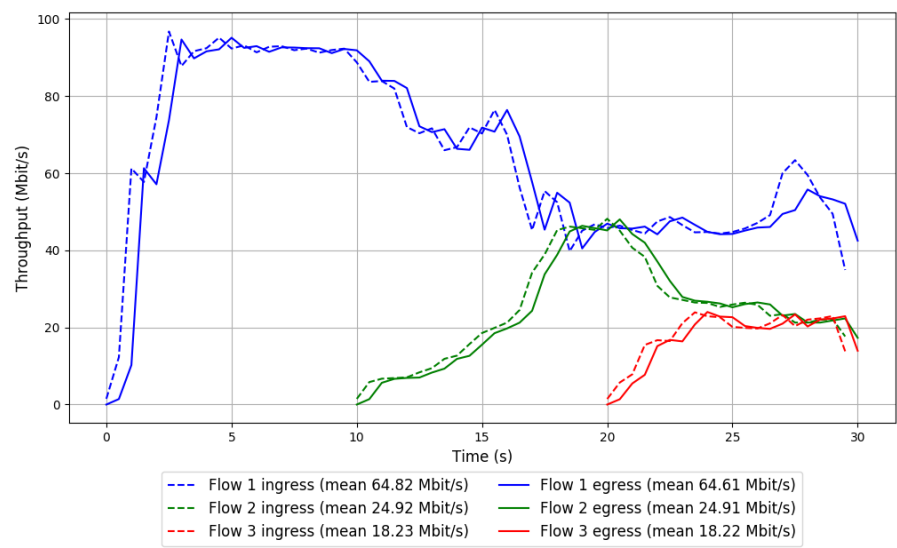
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 32.48 Mbit/s)   Flow 1 egress (mean 32.50 Mbit/s)
Flow 2 ingress (mean 32.61 Mbit/s)   Flow 2 egress (mean 32.61 Mbit/s)
Flow 3 ingress (mean 21.05 Mbit/s)   Flow 3 egress (mean 20.97 Mbit/s)

Flow 1 (95th percentile 21.43 ms)   Flow 2 (95th percentile 22.92 ms)   Flow 3 (95th percentile 29.99 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-07-12 16:43:50
End at: 2019-07-12 16:44:20
Local clock offset: 3.827 ms
Remote clock offset: -1.079 ms


# Below is generated by plot.py at 2019-07-12 18:45:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.17 Mbit/s
95th percentile per-packet one-way delay: 77.340 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 64.61 Mbit/s
95th percentile per-packet one-way delay: 151.297 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 24.91 Mbit/s
95th percentile per-packet one-way delay: 33.162 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 18.22 Mbit/s
95th percentile per-packet one-way delay: 25.889 ms
Loss rate: 0.24%
```

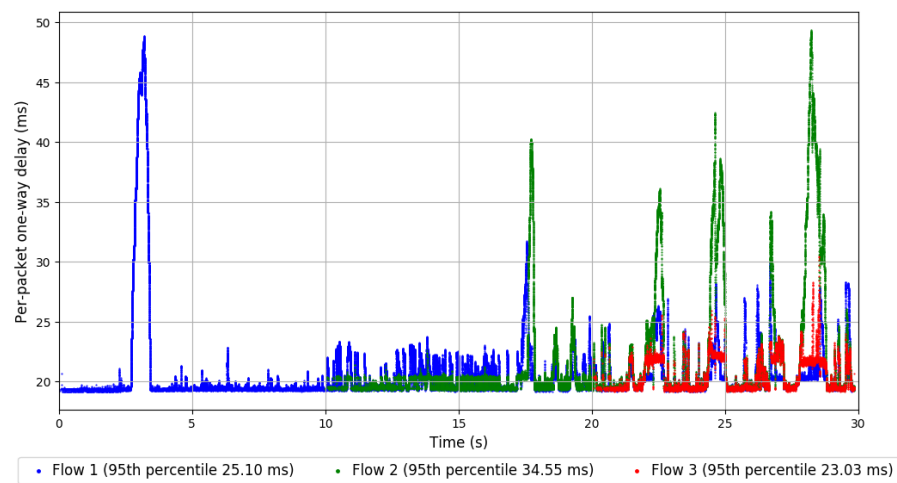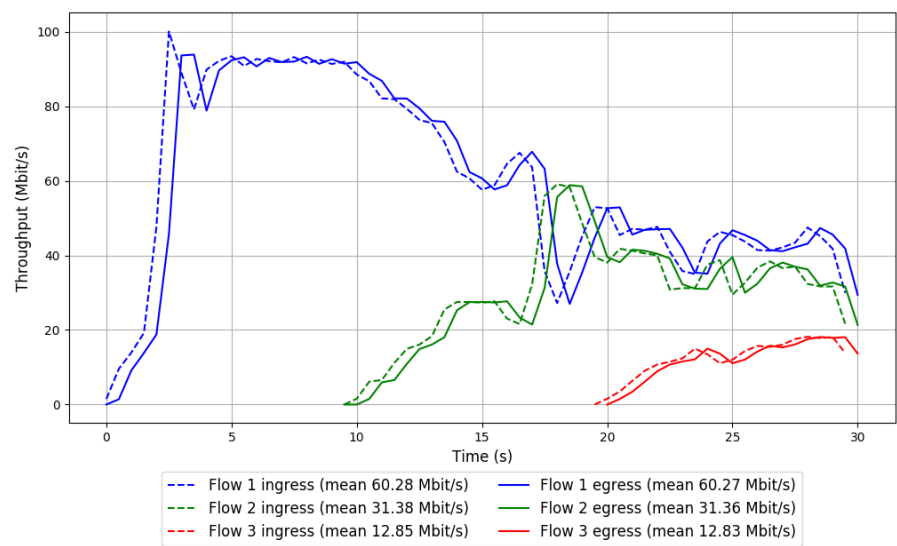Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-07-12 17:13:38
End at: 2019-07-12 17:14:08
Local clock offset: 3.068 ms
Remote clock offset: -0.563 ms


# Below is generated by plot.py at 2019-07-12 18:45:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.38 Mbit/s
95th percentile per-packet one-way delay: 29.067 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 60.27 Mbit/s
95th percentile per-packet one-way delay: 25.100 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 31.36 Mbit/s
95th percentile per-packet one-way delay: 34.552 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 12.83 Mbit/s
95th percentile per-packet one-way delay: 23.033 ms
Loss rate: 0.37%
```
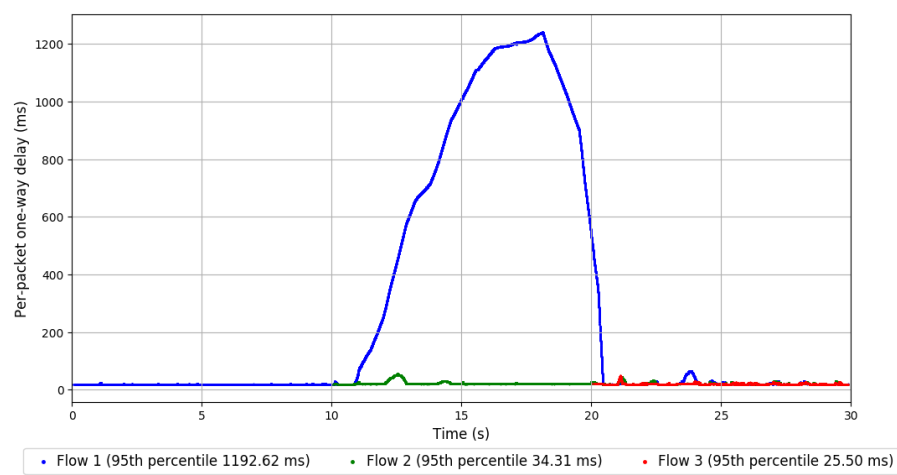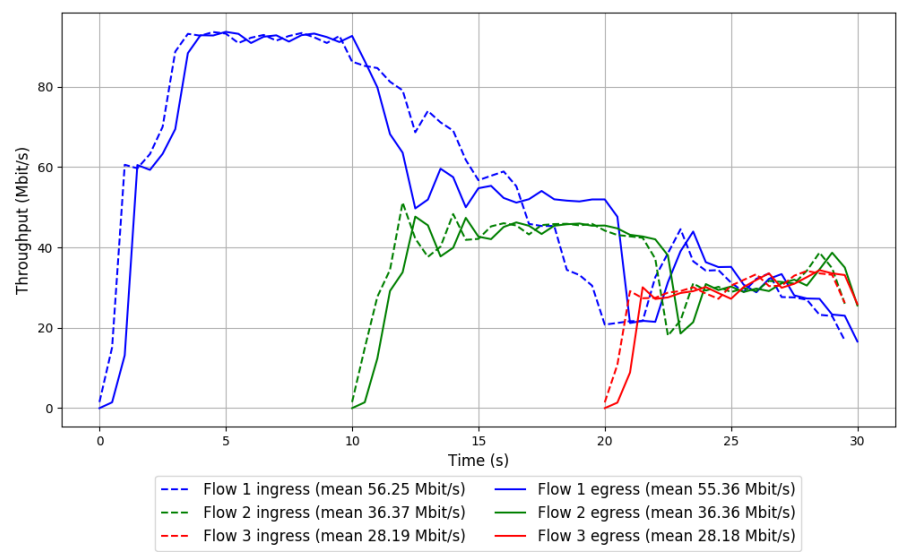
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 60.28 Mbit/s) — Flow 1 egress (mean 60.27 Mbit/s)
Flow 2 ingress (mean 31.38 Mbit/s) — Flow 2 egress (mean 31.36 Mbit/s)
Flow 3 ingress (mean 12.85 Mbit/s) — Flow 3 egress (mean 12.83 Mbit/s)

Flow 1 (95th percentile 25.10 ms) — Flow 2 (95th percentile 34.55 ms) — Flow 3 (95th percentile 23.03 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-07-12 17:42:53
End at: 2019-07-12 17:43:23
Local clock offset: 2.865 ms
Remote clock offset: -2.219 ms


# Below is generated by plot.py at 2019-07-12 18:45:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.83 Mbit/s
95th percentile per-packet one-way delay: 1146.274 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 55.36 Mbit/s
95th percentile per-packet one-way delay: 1192.622 ms
Loss rate: 1.67%
-- Flow 2:
Average throughput: 36.36 Mbit/s
95th percentile per-packet one-way delay: 34.315 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 28.18 Mbit/s
95th percentile per-packet one-way delay: 25.505 ms
Loss rate: 0.30%
```

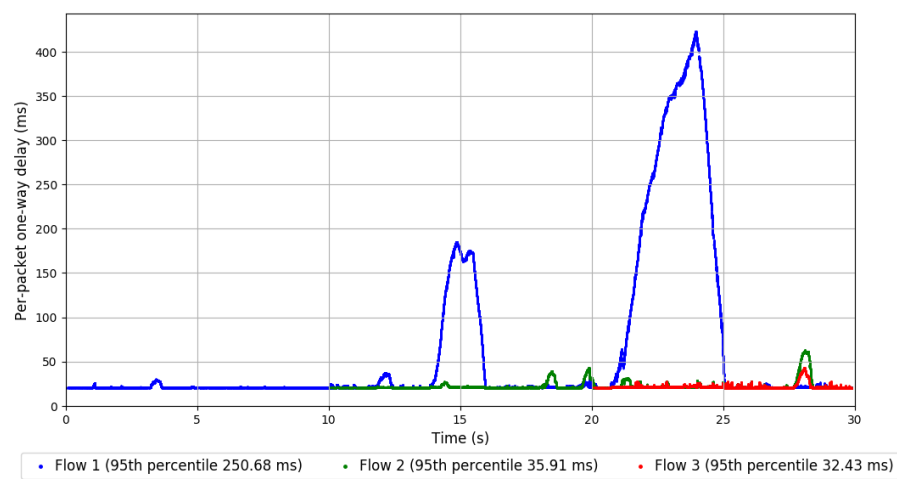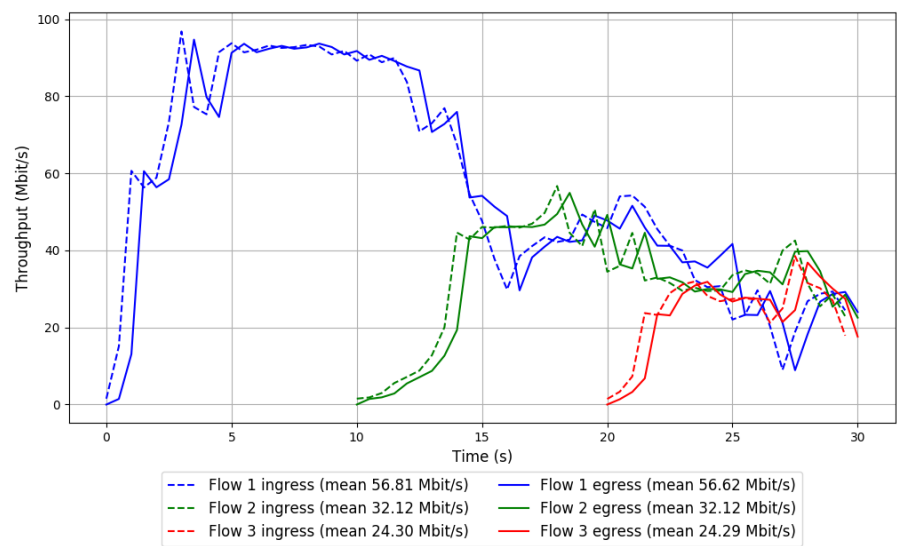# Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-07-12 18:12:11
End at: 2019-07-12 18:12:41
Local clock offset: 7.762 ms
Remote clock offset: -3.334 ms


# Below is generated by plot.py at 2019-07-12 18:45:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.99 Mbit/s
95th percentile per-packet one-way delay: 174.071 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 56.62 Mbit/s
95th percentile per-packet one-way delay: 250.675 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 35.911 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 24.29 Mbit/s
95th percentile per-packet one-way delay: 32.428 ms
Loss rate: 0.27%
```

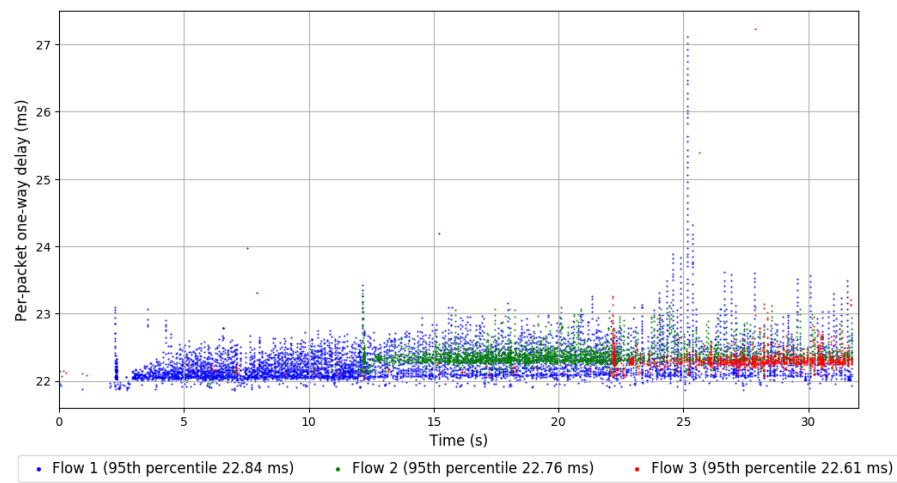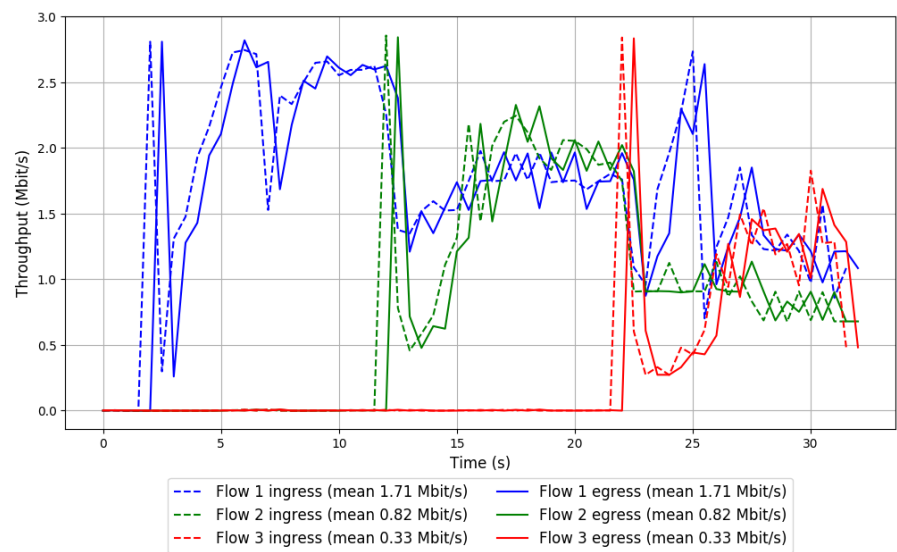Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-07-12 16:22:48
End at: 2019-07-12 16:23:18
Local clock offset: 4.235 ms
Remote clock offset: -2.201 ms


# Below is generated by plot.py at 2019-07-12 18:45:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.85 Mbit/s
95th percentile per-packet one-way delay: 22.789 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 22.835 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 22.756 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 22.615 ms
Loss rate: 0.01%
```

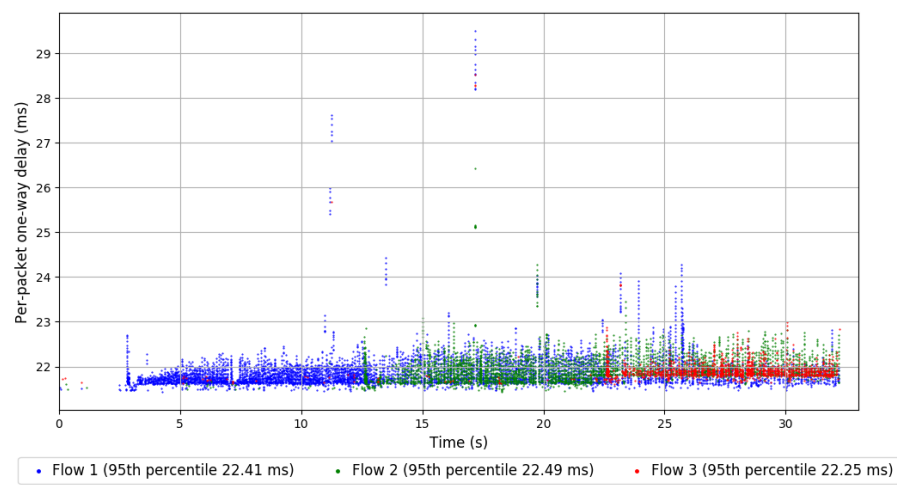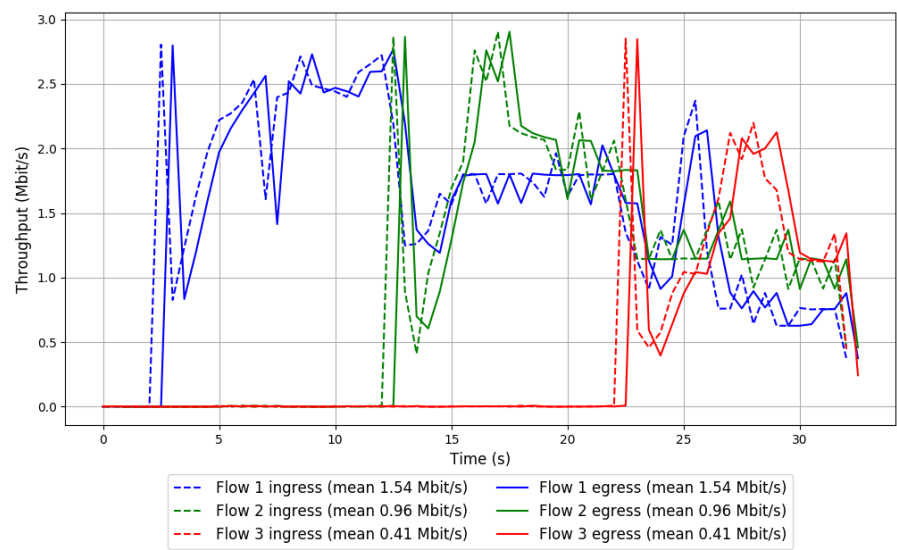Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-07-12 16:52:25
End at: 2019-07-12 16:52:55
Local clock offset: 3.578 ms
Remote clock offset: -2.757 ms


# Below is generated by plot.py at 2019-07-12 18:45:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.90 Mbit/s
95th percentile per-packet one-way delay: 22.427 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 22.411 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 22.491 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 22.255 ms
Loss rate: 0.77%
```

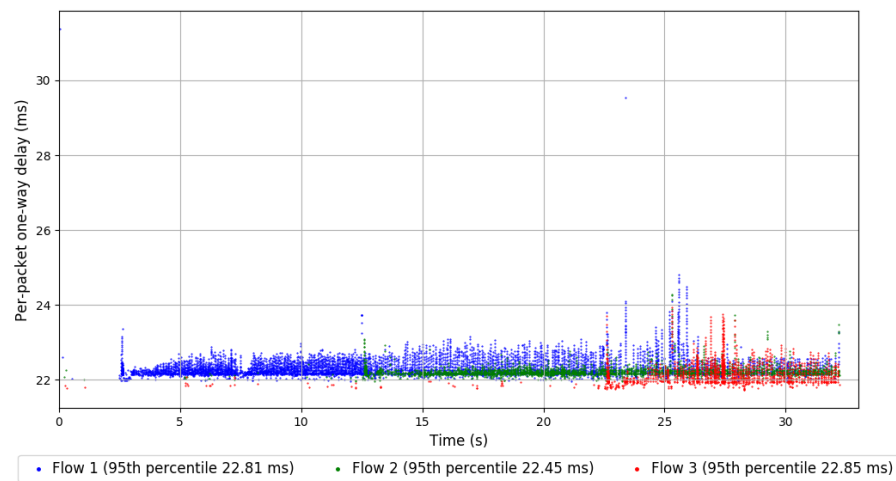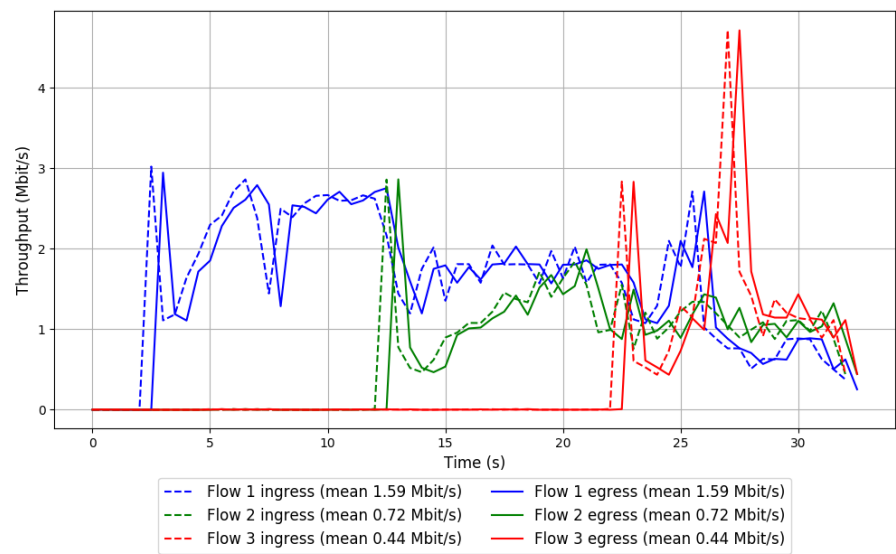Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-07-12 17:22:04
End at: 2019-07-12 17:22:34
Local clock offset: 2.96 ms
Remote clock offset: -3.623 ms


# Below is generated by plot.py at 2019-07-12 18:45:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 22.763 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 22.812 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 22.446 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 22.848 ms
Loss rate: 0.00%
```

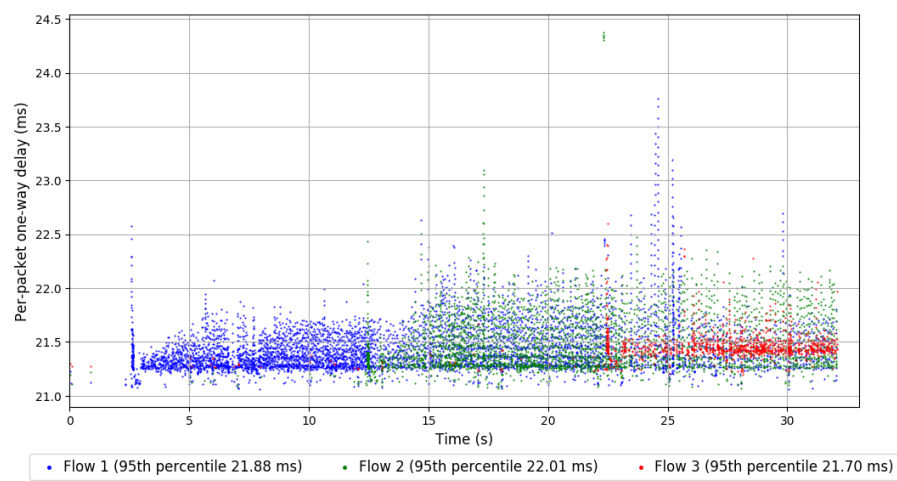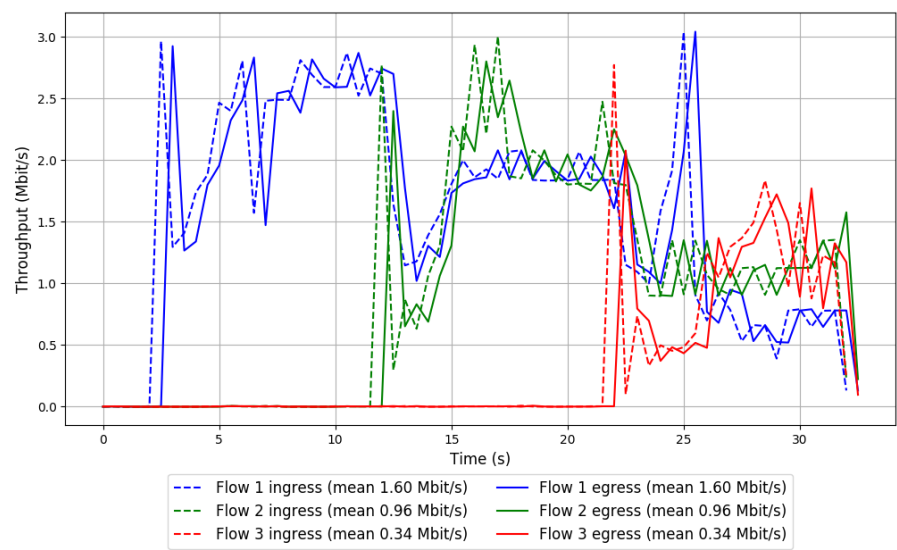Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-07-12 17:51:24
End at: 2019-07-12 17:51:54
Local clock offset: 2.993 ms
Remote clock offset: -4.363 ms


# Below is generated by plot.py at 2019-07-12 18:45:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.89 Mbit/s
95th percentile per-packet one-way delay: 21.937 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 21.882 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 22.010 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 21.701 ms
Loss rate: 0.62%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-07-12 18:20:51
End at: 2019-07-12 18:21:21
Local clock offset: 8.686 ms
Remote clock offset: -2.823 ms


# Below is generated by plot.py at 2019-07-12 18:45:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.00 Mbit/s
95th percentile per-packet one-way delay: 20.300 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 20.238 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 20.287 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 20.504 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.60 Mbit/s) — Flow 1 egress (mean 1.60 Mbit/s)
Flow 2 ingress (mean 0.95 Mbit/s) — Flow 2 egress (mean 0.95 Mbit/s)
Flow 3 ingress (mean 0.46 Mbit/s) — Flow 3 egress (mean 0.46 Mbit/s)

Flow 1 (95th percentile 20.24 ms) • Flow 2 (95th percentile 20.29 ms) • Flow 3 (95th percentile 20.50 ms)